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THE HARVESTER WORLD

VOL 3

CHICAGO, JULY, 1912

No. 7



1902 - 1912

An Anniversary Number
reviewing the 10 years pro-
gress of the International
Harvester Company



THE HARVESTER WORLD

Anniversary Number

Issued upon the Tenth Anniversary of the formation of the
INTERNATIONAL HARVESTER COMPANY

THE HARVESTER WORLD, HARVESTER BUILDING, CHICAGO

Vol. 3

CHICAGO, JULY, 1912

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The Record of Ten Years

BY CYRUS H. McCORMICK, PRESIDENT

The International Harvester Company has aimed to produce the best machines that can be made, at a minimum cost to the farmers of the world. To do this required better facilities and greater economy in the production of these machines, making it possible to preserve a low level of prices and also increase the efficiency and durability of the machines and the facilities for their distribution. In carrying out this purpose much pioneer work has been done and many obstacles have been met and overcome. The problem of obtaining the best kind and quality of raw materials has been carefully studied; manufacturing plants in the United States and Canada have been enlarged to meet the increasing demand for their products, and the manufacture of harvesting machines has been supplemented by new lines of implements. This has favorably affected both the factories and the selling organization, so that now a full force is employed throughout the year, instead of, as formerly, only eight or ten months each year.

The expansion of foreign trade has been one of the chief objects of the Company. The volume of its production has been thus enlarged and the steadiness of the demand for its machines from year to year increased—resulting in more employment for American workmen. The rapid growth of the business in foreign lands has led to the establishment of manufacturing plants and new distributing agencies in those countries. In both manufacturing and selling, the business of the Company is now world-wide—international.

For its employees the Company has inaugurated a system that secures better conditions of work; that protects the employees from loss through sickness; that provides liberal compensation to them and their families in case of accidents causing injury and death, and which furnishes them pensions in their old age. By adopting a compensation plan of its own, the Company anticipated the earliest workmen's compensation law in the United States by nearly two years. It also has a system of profit sharing, under which more than 3,600 of its employees have become stockholders. It has installed the best modern appliances for safe and sanitary conditions of labor, with hospital, medical and trained-nurse service for the sick and the injured, and has also provided facilities for social, musical and athletic clubs and organizations.

The Company has maintained a policy of fair, honorable and friendly relations toward competitors, in place of the former wasteful, unfair and destructive practices and methods which generally obtained prior to its organization.

We hope that ten years of clean and legitimate busi-

ness methods, free from any of the unfair practices which the public has justly condemned, have established this Company in the public mind as an honorable business organization. Its policy has been one of the fullest publicity; all the facts as to its organization and its operation, its methods and earnings have been freely given to the Government and the public. If the time has arrived when corporations like individuals can be judged by their acts, the International Harvester Company has nothing to fear from investigations or suits by State or Federal authorities.

The officers of the Company have enjoined upon its employees that strict obedience to the law, fair treatment of competitors, and a frank and courteous attitude toward the public are essential requisites. It is a cause of gratification that this policy and these instructions have been faithfully carried out. I welcome this opportunity of expressing for the directors and officers their appreciation of the fine spirit of loyalty and co-operation which has been shown by the entire organization, in the effort to conduct the business in accordance with the highest standards of integrity and fair dealing.

The last decade has marked a great advance in the development of agriculture. Tilling the soil is now one of the most honorable, independent and prosperous of callings. This economic and social transformation has been brought about in part by the wide dissemination of scientific knowledge pertaining to agriculture, but chiefly by greatly increased use of mechanical power on the farm. The Company has had an important part in bringing about these improved conditions. Aside from its large expenditures in developing and perfecting new types of labor-saving machinery for the farm, it has co-operated with the Federal Government, with state institutions, agricultural colleges and other educational agencies in spreading the doctrine of more intelligent farming. It realizes that upon the prosperity of the American farmer must rest the prosperity of the Company.

The International Harvester Company has attempted to show that a large corporation can be directed and inspired by the same high ideals which so often characterize the management of a private business. It has not tried to shield its actions behind any impersonal forms, but has accepted the full responsibility for its acts, and has asked to be judged by what it does. Its officers and leading employees have spent their lives in building up a sound and creditable business organization, and their purpose and effort have been to bring to this Company the same personal zeal for honorable success which gave to the predecessor companies the high esteem of the commercial world.

The Company and the Law

The policy of the Company from its organization has been consistently and conscientiously enforced in all departments, to secure strict observance of the rights of the public—competitors, dealers and customers; and whenever any infraction of this policy has been discovered, it has been promptly condemned and corrected. The Company has refused to participate in promoting or defeating legislation, or to submit to blackmail or extortion; and it has thus incurred some of the bitterest attacks made upon it.

It has given little time to explanations or defenses, yet has been at all times ready to disclose to any public authority desiring to know, the facts as to its organization and the conduct of its business.

Almost immediately upon the organization of the Department of Commerce and Labor, the Company offered to the head of that department, and to the Commissioner of Corporations, the fullest opportunities for investigating the affairs of this Company. Afterward, in 1907, such an investigation was begun; and the Company has since then facilitated the work in every way, placing its books, records and organization in the United States and in Europe at the service of the Government examiners without limitation of any sort. Such investigation has been in progress during the past five years; and it was not completed when the Government brought its suit, on April 30, 1912, at St. Paul, to dismember the Company.

In the several prosecutions under drastic State anti-trust laws, charges of misconduct toward competitors and local dealers, and an unreasonable increase of prices to the farmers, were freely made, but they were never sustained.

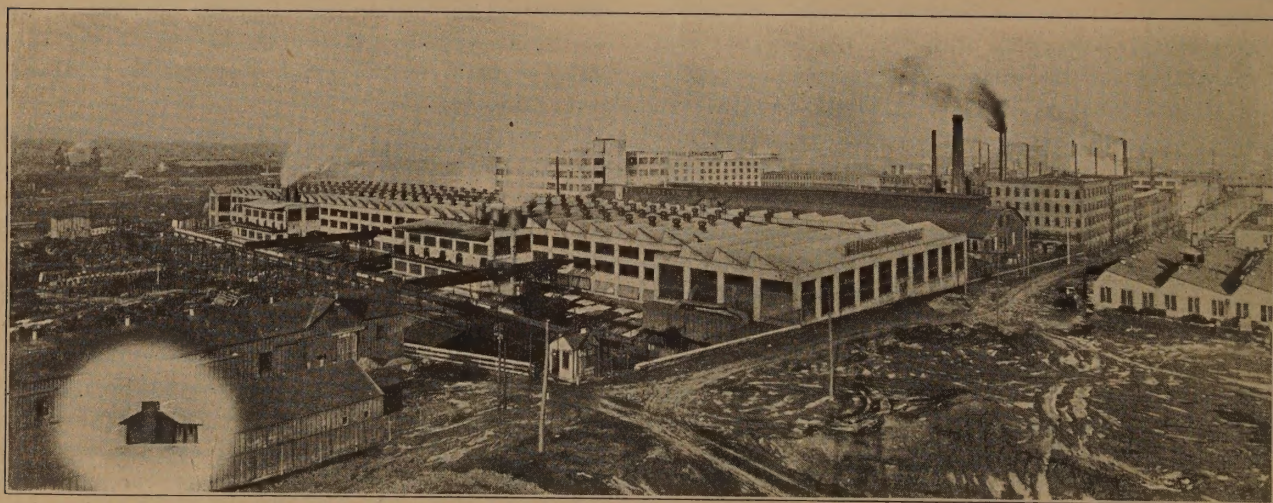
In Kansas, after three years' investigation and hearing, the Commissioner found that the machines have been constantly improved and made more efficient and durable, and the facilities for distributing the goods and their repairs to the farmer have been greatly improved:

"The evidence is conclusive that the facilities offered to implement dealers and farmers . . . and the liberal credits given to local dealers are far superior to the methods in force by the companies doing business in this state prior to 1902."

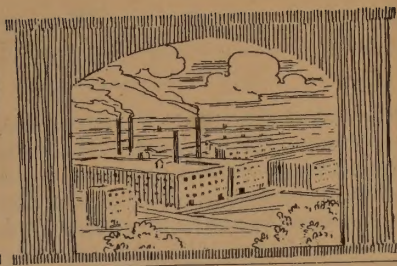
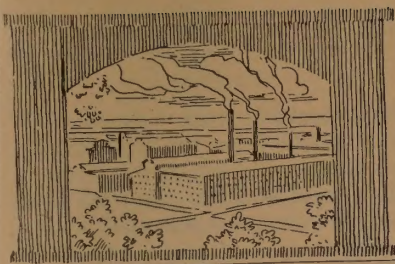
"The evidence shows that the binder is almost the cheapest thing the farmer buys when the intricacy of its parts, the expense of marketing it, and the cost of the material of which it is made are taken into consideration."

So, also, in Missouri, after taking evidence two years, the Commissioner found that the Harvester Company had benefited trade conditions in that state; and the Supreme Court of Missouri, in its decision on November 14, 1911, said:

"The evidence also shows that the price of harvester machines was not materially higher after the New Jersey corporation entered the field than it was before, until 1908, when it was increased eight or ten per cent., whilst in the meantime there had been a greater increase in the price of the material and labor used in their construction. The evidence also shows that whilst harvesting machines were the chief products of the companies absorbed by the International Harvester Company, that Company has greatly enlarged its business and extended it to many other farm implements and has thus put itself in competition with the many concerns that theretofore were and still are engaged in manufacturing such other farm implements, and the farmers generally have profited thereby. The evidence also shows that the machines manufactured by the International Company have been greatly improved in quality and the item of repair material has been reduced in price and placed within closer reach of the farmer. On the whole the evidence shows that the International Harvester Company has not used its power to oppress or injure the farmers who are its customers."



The Milwaukee Plant as it looks today



The Company and Its Employees

There was a period in the industrial development of this country when employers, engrossed with the many vexing problems incident to establishing and putting their business on a sound basis, gave little or no attention to the physical or moral welfare of their employees. About the only thought that the employer had for his men was on the day the pay envelope had to be filled; and the employee's interest in his employer was aroused from its sub-normal condition to one of active concern when the paymaster hove in sight. Rapid strides away from this condition have been made in the past few years. Labor has, on its part, demanded and received many needed reforms, some of which have been brought about by legislation and some as the voluntary action of the employer. Many employers have come to realize that they owe more than the wages, and that their employees are entitled to clean, light, sanitary and safe places in which to work, to compensation when disabled, and to provision for old age, as much as they are to the pay envelope. The business value of this attitude is apparent. It is not in any sense charity nor is it wholly philanthropic. Any man or body of men entrusted with the management of a business belonging to others will be severely criticised, and justly so, for spending money foolishly, no matter whether such expenditures be for old and antiquated machinery or for putting talking machines into the homes of their employees.

A careful business man sees that his property is maintained in excellent condition. His buildings are kept in good repair and fully insured against loss from fire. His machinery is always maintained at a high point of efficiency, no rust is allowed to accumulate, and plenty of oil and men are ready at all times to care for its needs. He cannot afford to allow a fire to stop the product coming through his shop; therefore he installs sprinkling devices and maintains a well-trained fire brigade among his employees. In short, every dollar he invests in his business is guarded and nursed so that it brings forth its full and legitimate earning power.

Welfare work, so-called, is simply applying the same business principles to his employees that he applies to the rest of his business. Good welfare work, like good business, pays.

The International Harvester Company is one of that class of employers which has voluntarily striven to better the conditions surrounding its forty thousand employees and it is a source of gratification to feel that its efforts have met with some degree of success. This tenth anniversary is a fitting time to review the results, but in doing so it should be remembered that without the splendid co-operation of every man and woman who had any official relation to this work no real success could have been attained.

EMPLOYEES' BENEFIT ASSOCIATION

In the summer of 1908, a special committee appointed by the officers of the Company completed their work in connection with the formation of a Benefit Association,

and on the first of September of that year the Company announced the establishment of its Employees' Benefit Association. To a large extent this association has been the means of relieving the minds of its members from financial worries when they are disabled on account of sickness or accident, and many widows and

Employees' Benefit Association
International Harvester Company

CERTIFICATE OF MEMBERSHIP

Office of the Superintendent, Chicago, Ill. SEPT. 1, 1909.

This Certifies That ANTON STRYSZEWSKI is a member of the Employees Benefit Association of International Harvester Company in accordance with the rules and regulations thereof

No. M 10002 Superintendent

910 Form 5-15-11

IMPORTANT THE RULES BE WELL READER

EMPLOYEES' BENEFIT ASSOCIATION
INTERNATIONAL HARVESTER COMPANY

NOTICE OF DISABILITY

By the Superintendent Employees Benefit Association, International Harvester Company, Chicago, Ill.

Name Anton Stryzowski (Last name)
Address 1835 W. Ave
Is disabled on account of Sickness which began 1/30/1912 Date reported 1/30/1912
Lost time began 1/30/1912 If accident give briefly nature and date of injury Fall Culinary hemorrhages

Send Original and Duplicate to Medical Examiner.

Signature Chas. A. Schaefer Superintendent of Employees' Benefit Association of International Harvester Company, Chicago, Ill.

Medical Examiner was one (specify his full name and forward certificate to Superintendent Employees' Benefit Association, Harvester Bldg., Chicago)

911-10

EMPLOYEES' BENEFIT ASSOCIATION
INTERNATIONAL HARVESTER COMPANY

CERTIFICATE OF DEATH

Name Anton Stryzowski Work January 29, 1912
I Certify That Anton Stryzowski was employed as Helper at Harvester Bldg. on the 29th day of January 1912 at eight o'clock a/clock Bk. from Tuberculosis Cause of Death SC-12188 after having been entitled to \$500.00 per Widow's Pensions

The last Medical Examiner's Report was sent to W. J. Bannard on 1/30 1912

Send this Certificate Direct to Superintendent Employees Benefit Association, Harvester Building, Chicago.

EMPLOYEES' BENEFIT ASSOCIATION
INTERNATIONAL HARVESTER COMPANY

No. 39751

CHICAGO, ILL. 9 FEBRUARY 6th, 1912 \$1459.35

PAY TO THE ORDER OF MICHALINA STRYSZEWSKI

FOURTEEN HUNDRED FIFTY-THREE and 38/100 DOLLARS

MERCHANTS' LOAN & TRUST CO. BANK, Chicago, Ill.

EMPLOYEES' BENEFIT ASSOCIATION
INTERNATIONAL HARVESTER COMPANY

Signature Chas. A. Schaefer Superintendent of Employees' Benefit Association, Chicago, Ill.

An Employee's Benefit Association story—the certificate of membership Sept. 1, 1909; notice of disability seventeen months later; sick benefit paid for fifty-two weeks, amounting to \$677.77; certificate of death, January 29, one year after beginning of disability and one week later death benefits amounting to \$1,453.35, paid to his widow. This member and his family received \$2,131.12

fatherless children have been cared for during the period of readjustment after the bread-winner had been taken away.

The membership in the association is purely voluntary, and as an indication of how the employees appreciate its benefits, 29,957 men and women were on June 1, 1912, enrolled as members. This association is governed

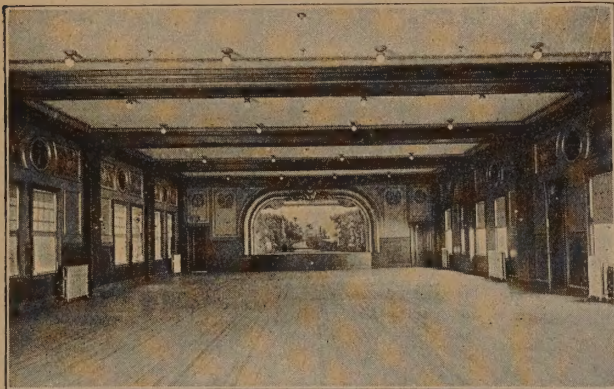
by a board of thirty-two trustees, sixteen of whom, representing the different works, etc., are annually elected by the members of the association, and sixteen are appointed by the board of directors of the Company. The board of trustees appoints a superintendent to manage the affairs of the association in accordance with its regulations and their directions. Medical examiners are employed by the association, one examiner being stationed



The IHC Club House at the Russian Plant

at each of the Company's works. Their duties are to make physical examination of applicants, prepare application blanks, visit the disabled members, and decide when they are sufficiently recovered to return to work, or whether their disability is of such nature as to prevent them from resuming their customary duties.

The contributions of the members support the association. The Company, however, made the following standing offer: that it would contribute each year the sum of \$25,000, provided 50 per cent of the employees in the works joined the association; and that it would contribute \$50,000 each year if 75 per cent of the works employees joined. The employees were quick to see the great advantages resulting from membership in the association and the Company has been called upon for,



The Main Hall at the Deering Club

and has gladly paid, the sum of \$50,000 each year. In addition to this cash contribution the Company furnishes the needed clerical assistance at its various works, agencies, etc.

The contributions made by the members and the benefits paid by the association are as follows:

CLASS B. Composed of the men and women employed in the works, twine mills, lumber mills, steel mills, mines, and on the railroads.

The contribution of members in class B is $1\frac{1}{2}$ per cent of their wages, and the benefits paid are:—

(1) For disability resulting from sickness, half wages after the first seven days for a period not exceeding fifty-two weeks.

(2) For disability from accident received while *off duty*, from time of injury, for a period not exceeding fifty-two weeks.

(3) Death resulting from sickness, one year's wages. Death resulting from accident *off duty*, two years' wages.

(4) Loss of one hand or one foot, one year's wages.

(5) Loss of both feet or both hands, or loss of one foot and one hand, two years' wages.

(6) Loss of one eye, half year's wages.

(7) Loss of both eyes, two years' wages.

Note: This association does not provide benefits for accidents received while *on duty* to members of this class as they are fully covered by the Company's industrial compensation plan, which is described later in this article.

CLASS A: All other employees of the Company, such as general office employees, sales and collection departments, etc., are members of this class.

Their contribution is $1\frac{1}{4}$ per cent of their wages. They receive the same benefits as do the members of class B, and, in addition, benefits for accidents received



The McCormick Works Club House

while *on duty*. These additional benefits are half pay for disability for a period not exceeding fifty-two weeks, and in the event of death (from accident received while *on duty*) two years' wages.

The regulations are safeguarded so that the rights of all its members are fully protected. No benefits are paid to members who are sick or disabled due to the use of intoxicating liquors or unlawful or immoral acts. The importance of this association is graphically reflected by these few figures, showing what the association has done for its members from September 1, 1908, to June 1, 1912:

Five hundred and fifty-one members have died (496 from sickness and fifty-five from accidental causes), and their beneficiaries have been, and will be, paid the sum of	\$421,657.75
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Nineteen thousand, four hundred and ninety-six claims have been paid for disabilities resulting from sickness and accident, amounting to	422,003.82
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Twenty-two special benefits paid, amounting to	11,837.37
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Total	855,498.94
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The International Harvester Company has contributed during 1909, 1910 and 1911	150,000.00
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The surplus of the association at December 31, 1911, was	241,859.36
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PENSIONS

In the fall of 1908, the International Harvester Company also announced the establishment of its pension system, and a short quotation from the pension regulations will serve to show the spirit in which the directors of the Company pay its pensions.

"The Board of Directors, after careful consideration of the subject and an examination of the various pension systems now in operation, have adopted the following plan as the most liberal for employes who, by long and faithful service, have earned an honorable retirement."

This pension plan was not announced to a body of young men who would have to look forward to twenty years' employment before they could take advantage of its provisions, but to young men and old men alike. This plan permitted any employe on the payroll of the Company at the time it was announced, to become eligible for a pension, provided he had arrived at the pensionable age and had worked continuously for the Company for the specified time called for in the regulations.

All male employes who have reached the age of



Some of the boys who take advantage of the I H C Works' Schools

sixty-five years and have been twenty years or more in the service may at their own request, or at the discretion of the pension board, be retired from active service and become eligible for a pension.

Employes reaching the age of seventy years shall be retired. This age limit is effective for all employes excepting those occupying executive positions.

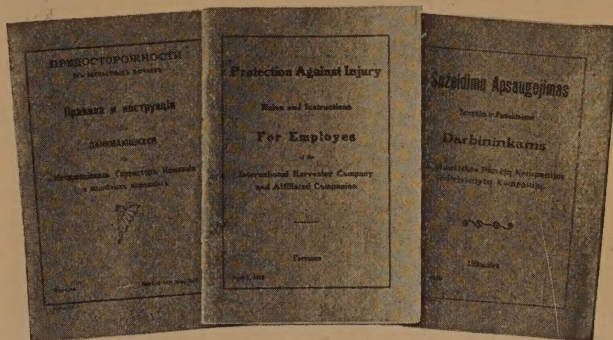
Women employes may be retired at the age of fifty-five years, but must be retired at the age of sixty years.

The amount of the pension is based on the length of service and the average earnings of the employe. For each year of service 1 per cent of the average earnings for the last ten years is paid. For example, if an employe has worked thirty years and his average earnings for the last ten years were \$1,200 a year, his annual pension would be 30 per cent of \$1,200, or \$360 per year. This pension continues during his lifetime. No pension is granted for less than \$18 per month or more than \$100 per month. The pension plan is administered by a board of five men, appointed by the directors of the Company. On the first of June, 1912, 140 employes had been retired on pensions.

The life story of many of the pensioners is the history of the harvesting machine industry. Some

have been on the pay-roll for over forty years and have seen at close hand the development of agricultural implements from the early crude reaper to the complicated and efficient harvesting machine of today.

Many employes who have pension plans have been repeatedly asked if pensions pay. From a purely financial standpoint the answer has been "no," but from the human side, "yes, a thousand times." Pensions give employes a sense of security for the future,



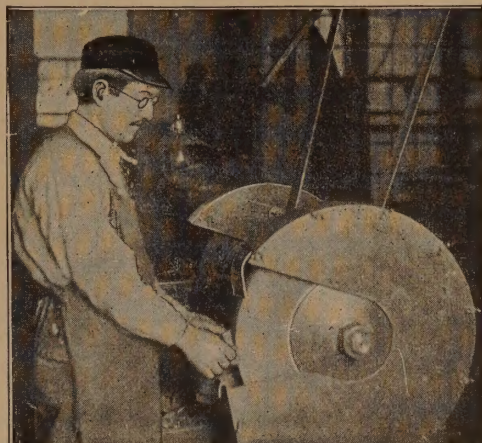
The Safety Rules in three different languages

cement an organization, bring the employer in close personal touch with his men, and, in fact, unite the two on a ground of common interest.

The I H C pensions are paid solely from the treasury of the Company and no contributions are received from the employes. On January 1, 1912, the pension fund amounted to the sum of \$1,027,719.27. This has been accumulated by annual appropriations of \$250,000 made by the Company during the past four years. The income from this fund has been sufficient each year to meet the annual pension requirements.

COMPENSATION FOR INDUSTRIAL ACCIDENTS

In speaking of the International Harvester Company's voluntary plan for compensating employes injured in



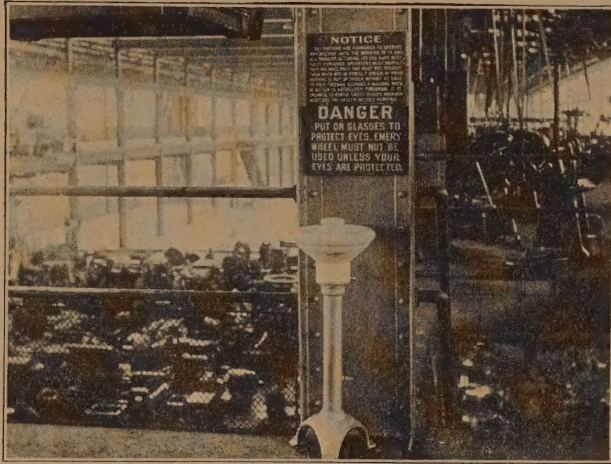
The Emery Room is no longer dangerous

the course of their duty, a leading metropolitan paper said editorially:

"It is natural that legislatures should be cautious and deliberate in dealing with employers' liability and revising common law principles. They must reckon with the backward opposition as well as with advanced sentiment and also with constitutional obstacles.

"But there is nothing to prevent an enlightened, humanized, 'peopleized' corporation or firm from adopting voluntarily the fairest and most liberal system of compensation for accidents for itself and from setting a splendid example to other corporations."

This editorial, appearing in April, 1910, referred to the plan adopted by the International Harvester Company



A typical Sanitary Drinking Cup — also showing warning in regard to protecting the eyes

in May of that year for compensating its employes in all cases of industrial accidents, irrespective of whether a legal liability existed or not. The Company announced that it would pay compensation for every accident occurring to its works employes in the course of their employment. This compensation has been paid regardless of the question of legal liability; the doctrines of "fellow-servant," "assumption of risk," and "contributory negligence" were thrown to the four winds; and no injured employe found it necessary to secure the services of an attorney to receive the compensation that the Company offered. In paying this compensation the Company asks for a legal release from further liability—a requirement found in all workmen's compensation laws.

SUBSEQUENT COMPENSATION LAWS

Recently enacted workmen's compensation laws in several states now require by law what the International Harvester Company did voluntarily. The compensation offered by the Company and that prescribed in those laws is practically the same, and shows that the individual or the corporation can suggest and put in operation plans that the law-makers approve and use as a basis upon which to model future legislation.

The compensation for industrial accidents paid by the International Harvester Company is as follows:

For disability, 50 per cent of the wages, for a period not exceeding two years. Thereafter, an annual pension for life equal to 8 per cent of the death benefit, such pension to be not less than \$10 per month.

The maximum weekly benefits are \$20.

In the event of death the Company pays three years' wages, with a minimum of \$1,500 and a maximum of \$4,000.

For the loss of an eye—three-fourths of a year's wages.

Both eyes—four years' wages, with a minimum of \$2,000.

For the loss of a hand or foot—one and one-half years' wages, with a minimum of \$500 and a maximum of \$2,000.

For the loss of both hands or feet—four years' wages.

Since the adoption by the Company of its compensation plan, that progressive state, Wisconsin, has enacted a compensation law. Employers were given the option, under certain conditions, of operating under it or not. The International Harvester Company was the first corporation in Wisconsin to signify its intention of operating under the law, and since September 1, 1911, it has been paying its injured employes in Wisconsin the compensation the law provides. The same action was taken in Illinois, when its law became effective on May first of this year. The state officials at Springfield say that the International Harvester Company also headed the list of Illinois employers who signified their intention of coming within its law.

Some heretofore unpublished figures covering the expenditures and operations of the Industrial Accident Department for the two years from May 1, 1910, are given:

Eighteen fatal accidents have been compensated for (so far as money can do so) by the payment of - - - \$ 43,969.93

Twelve thousand, nine hundred and twenty-nine disability claims have been paid, amounting to - - - 154,911.77

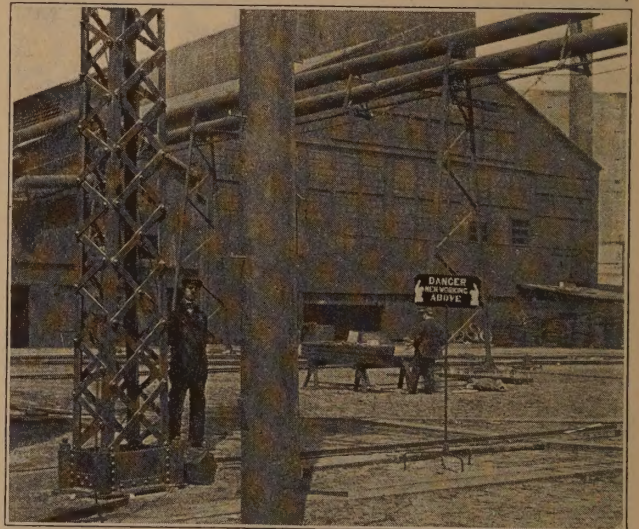
Forty-nine special settlements have been made, aggregating - - - 37,021.98

Total compensation paid for industrial accidents in two years - - - \$235,903.68

The durations of the disability claims were as follows:

5.07	per cent, lasting	1 day or less,	
62.21	" " " "	1 " " " " " " " "	
15.79	" " " "	7 days " " " " " " " "	13 " "
6.98	" " " "	13 " " " " " " " "	19 " "
3.53	" " " "	19 " " " " " " " "	25 " "
2.31	" " " "	25 " " " " " " " "	31 " "
3.34	" " " "	31 " " " " " " " "	61 " "
77	" " " "	61 " " " " " " " "	
		or over	

100 per cent



One way to lessen the hazards of an industry

SAFETY

Every employer regrets when any of his employes are injured. It is a terrible thing to have some one maimed, possibly for life, while he is working for you, but much more terrible to have an accident result fatally. All

would be only too glad if industrial pursuits could be free from such dangers, but unfortunately they are not. Not every employer, however, takes steps to prevent the ones that are preventable. There is a movement sweeping over this country, especially among the larger employers of labor, to prevent accidents, and an endeavor on their part to have their employees get the "safety habit." For years the International Harvester Company has been working on this subject and of industrial accidents. It has done a great deal to remove the causes. Large sums of money have been expended in guarding its machinery and in throwing safeguards around all



The Tuberculosis "Shack" at Naperville, Ill.

dangerous places in its plants. It cannot, however, guard against human nature. There will always be accidents as long as there is industry, but much can be done along educational lines in helping the worker to avoid accidents through the knowledge of where the danger lies. The International Harvester Company has undertaken an educational campaign—first, with the men in its works and mills *who have charge of labor*, and second with the workmen. This Company says that unless a foreman of a department has the "safety habit," it is useless to look for it among his men. Guarding machinery gives added confidence to the operator, but the mere fact that a machine is guarded does not always impress the operator that he must use precaution in other directions; otherwise he may be the cause of an injury to himself or to his fellow workmen. In addition to safeguarding its machinery, the Company has prepared and printed books of rules and instructions for its foremen and workmen. These rules have been translated and printed in some fifteen different languages so that there is no excuse for an employee not becoming familiar with them on account of his being unable to read English. The best men in the Company are constantly thinking of ways and means to prevent accidents. Splendid results have already been accomplished, but as in everything, there is room for more. It seems rather unfeeling to reflect accidents in terms of dollars and cents, nevertheless this Company uses the amount of money paid out at its various works through its Industrial Accident Department for comparison with the various works. There is the same rivalry among the superintendents of the works to reduce the cost of accidents per employee as, for example, there is in reducing the cost of their grey iron castings. Remember that when you are reading this article the safety organization of the Company is at work; in fact, it never sleeps. And there is no reason why the "safety habit" should be limited to the industrial world, for if more people acquired it we would see less startling and painful notices in the daily papers about accidents of all kinds.

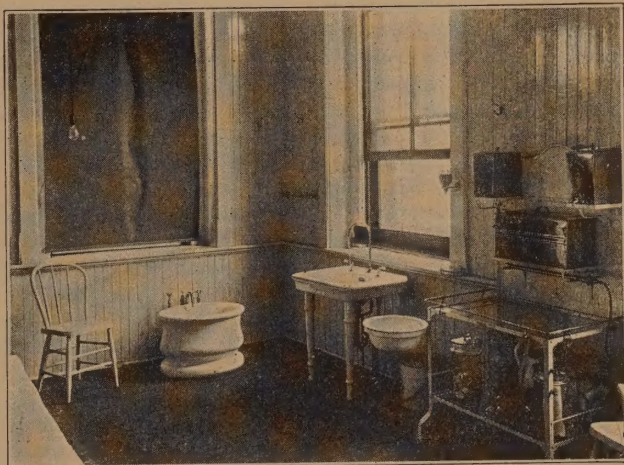
HEALTH

The easiest thing to lose and the hardest to regain is health. Good health is never fully appreciated until it is lost.

Employers of labor have everything to lose and nothing to gain by neglecting the general health of their

employees. You could not put an athlete in the basement of a building to train and then expect him to win on the day of the race; neither can you expect a workman to maintain the degree of efficiency that his employer is entitled to and give him unsanitary work shops. In building a new factory these problems are easily solved. Modern ideas are embodied in the original plans. In approaching this subject of health the Company had a difficult problem. Many of its plants were started from small beginnings and added to in a small way from year to year as the increase in business warranted. In many instances this meant, instead of a large, well-laid-out plant, an accumulation of buildings erected from year to year and without embodying any well-concerted plan for the worker's welfare. As a matter of fact, these conditions could not have been foreseen, for when some of these plants were first built the harvesting machine industry was in its infancy and going through the pioneer stage. These conditions are now all changed and for years the Company has been installing modern and up-to-date sanitation. Old closets have been replaced by new and modern ones, individual lavatories installed, and a small fortune spent in giving its men sanitary working quarters. The undertaker's friend—more commonly known as the common drinking cup—has been abolished and the drinking fountain installed in its place. The drinking water supply at each of the works has been analyzed, and wherever impurities are found the Company has provided pure water, even though this has involved discarding the municipal supply and substituting artesian wells. A careful record is kept of all typhoid fever cases, which must be reported promptly to the general office.

Some years ago light and air were not considered essential in the average factory. Every factory superintendent knows, however, that you cannot get good



An example of the Hospital Rooms at the IHC Plants

results from your men in work rooms with insufficient light. In addition to making men more efficient, sunlight and good air are the chief assets of good health. Exhaust systems have been installed in grinding rooms, foundries, and over emery wheels, etc., to remove the dust; ventilating systems installed to furnish plenty of fresh air, whitewash to brighten up and lighten the rooms, and a scientific and practical use of electricity for artificial lighting purposes—all in themselves seem small but taken in the aggregate make a great factor for better health conditions.

At each of the works a first aid hospital room has

been fitted up, in charge of a competent doctor employed by the Company. The Company has ten nurses located at different works, who give first aid and who visit the homes of the sick and injured employes and render a service that only a visiting nurse can give. Five of the nurses are located in Chicago, and their services are secured at the Company's expense from the



The Washroom and Toilet at the Osborne I H C Works

Chicago Visiting Nurses' Association, which has done and is doing such a splendid work in that city.

At each of the five works where large numbers of girls are employed, a matron is engaged by the Company to look after their interests.

The Company is also making a thorough investigation of tuberculosis. Its plan is to discover the employes suffering from that disease and the investigation is being carried on by an expert tuberculosis doctor and nurse. Every effort is made to prevent the disease in the Company's works. When cases are found by the doctor, instructions are given to the employes for their care at their homes. Out-of-door work is given wherever possible for those who by exercising care in their mode of living can arrest the advance of the disease. The incipient and moderately advanced cases are sent to sanatoriums for treatment. At the Edward Sanatorium, Naperville, Illinois, the Company has erected a ten-bed shack for its tubercular employes. This does not provide accommodations for all, and the Company is using other sanatoriums near Chicago and elsewhere for this purpose. Manufacturing the Company's products is not unhealthy work and tuberculosis is not more prevalent in its works than in other large industries. The Company has made progress in this tuberculosis investigation, has helped many employes to regain their health and earning power, and is eliminating from its shops, in a humane way, all dangers of infection to other employes.

OTHER WELFARE ACTIVITIES

The Company has furnished at some of its works well-equipped clubhouses for the use of its employes. Its aim is to make these clubhouses self-supporting, for it has been found that the employes do not as fully appreciate or use the facilities that are maintained gratis. The Company has just completed the erection of a Y. M. C. A. building at Benham, Kentucky, where its coal mines and coke ovens are situated. Benham, which is a model mining town, has been built entirely by the Company.

Much attention has been given to educational work

for the boys at the Company's works. Two day schools are now in operation, and the school work counts as shop work. Classes in English for foreigners and systematic co-operation with the public schools also have its earnest attention.

Sixteen lunch rooms are in operation, where meals are provided at cost.

The entire welfare work of the Company is in charge of a committee composed of the superintendents of the works and twine mills. This committee is known as the Advisory Board on Welfare.



A statistical study of the eleven most important agricultural states brings out some interesting data regarding the growth of agriculture in the United States. The following table gives the present size of these states, and the population in 1850 and in 1910:

	Population 1850	Population 1910	Land Area
Iowa - - - -	192,214	2,224,771	55,586
Illinois - - -	851,470	5,638,591	56,002
Wisconsin - -	305,391	2,333,860	55,256
Kansas - - -		1,690,949	81,774
Minnesota - -	6,077	2,075,708	80,858
Dakotas - - -		1,160,944	147,051
Indiana - - -	988,416	2,700,876	35,885
Michigan - - -	397,654	2,810,173	57,480
Missouri - - -	682,044	3,293,335	68,727
Oklahoma - -		1,657,155	69,414
Texas - - - -	212,592	3,896,542	262,398
	3,635,858	29,482,904	970,441

It is interesting to know that in 1850 these states, comprising one-third of the land area of the United States, contained only 16 per cent of the total population, while at the present time they contain 30 per cent. The greater percentage of the population of these states is rural; for instance, Iowa does not contain a single city with a population of 100,000 or over; Illinois has but one; Wisconsin one; Kansas none; Minnesota two; the Dakotas none; Indiana one; Michigan two; Missouri two; Oklahoma none; Texas none. In a total population of over 29,000,000 there are only nine cities of over 100,000. In the two great states of North and South Dakota there is not a city over 15,000. In 1800, 4 per cent of the people lived in the cities; in 1850, less than 5 per cent; in 1900, 31.1 per cent.



Preparing for the summer harvest



A Financial Review

ORGANIZATION

The excellent industrial facilities and efficient commercial organization of the International Harvester Company have been frequently praised. The conservative plan of its original corporate organization and its sound financial progress since that time, are equally praiseworthy.

During the past few years there has been much ill-considered argument for the suppression of all large industrial organizations regardless of their causes and of their benefits or injuries to the public. In protecting the people from the abuses of industrial and commercial power, the benefits should be preserved. The corn should not be pulled up with the weeds, or a useful tree cut down because a branch obstructs the highway.

The formation of the International Harvester Company, ten years ago, was the natural outgrowth of the abnormal and wasteful conditions which had obtained in the harvester trade for several years, and which had become unfair and injurious to the farmer, the local dealer, and the manufacturer. In its organization there was no suggestion of stock speculation or a desire to create securities to unload on the public.

There was no watered stock. Independent, expert appraisers, recognized for their reliability and reputation, were appointed to value the properties purchased at organization. The appraisals were completed in a careful, efficient, and impartial manner at valuations excluding any allowance for patents, trade-marks or goodwill. No concern ever obtained such complete, accurate, and reliable records of property values as the International Harvester Company insisted upon having before the purchase of its properties at organization.

When the appraisals were completed, it was found that the total valuation of the physical property acquired aggregated \$67,076,229, exclusive of any allowance for the patents, trade-marks, shop-rights, or goodwill, which had been established at great cost by the former owners during long terms of business. For the operation of its business, \$60,000,000 in cash working capital was required. Therefore, the capital stock was fixed at \$120,000,000, of which \$60,000,000 was issued for the physical properties which had been conservatively appraised at over \$67,000,000, and the remaining \$60,000,000 was issued for cash at par, fully paid.

GROWTH OF THE COMPANY

In the ten years of the Company's existence, it has steadily progressed. This will be most clearly demonstrated by a brief reference to the increase in its asset value during that time and the increase in the volume of sales and net profits.

In this ten-year period, the Company has expended \$34,000,000 for additions to its permanent plants and raw material properties, as follows: \$9,000,000 has been spent in protecting the large raw material require-

ments of the Company, ore mines in the Mesaba range, blast furnaces and steel mills at South Chicago, coke ovens built adjacent to the Company's coal mines in Kentucky; additional timber properties and saw mills in Mississippi and Missouri; \$14,000,000 has been expended in new plants in the United States, equipped for the manufacture of the increased demand for harvesting machinery and tillage implements at home and abroad, and for the production of the newly developed lines of wagons, manure spreaders, gasoline engines, cream separators, auto-wagons, tractors, drills, etc. Because of their tariff policy this Company has been compelled to construct plants in Canada, France, Germany, Russia and Sweden, at a cost to date of \$8,500,000, for the manufacture of a portion of the demand for harvesting machinery and tillage implements in those countries. And \$2,500,000 has been expended for new agency warehouses on the territory to provide additional storage and transfer facilities in order to afford prompt service to the farming community during the harvest season.



The I H C way of handling an Iowa corn field



The Company's total investment in inventories and in farmers' and agents' notes and accounts, amounts today to \$150,000,000. The working capital requirements of the Company are very large; first, because of the heavy investment in works inventories required in the many months of manufacturing in advance of the short selling season; second, because of the large stocks of harvesting machinery, repairs, and twine carried at all convenient locations throughout the world to be immediately available to meet the varying demands of a trade which cannot be known until the harvest is at hand; third, because of the liberal credits extended to the farmers in the sale of these machines. This Company has played a most important part in the promotion of agriculture throughout the world by its extension of credit to the farming community to enable them to purchase modern farm machinery and agricultural appliances for immediate use, relying for repayment upon crops subsequently to be produced. A credit of \$80,000,000 extended to customers at this time, is indicative of the Company's policy in this regard and its willingness to assume its full share of the burden of financing the expansion of agriculture for the world's growing needs.

The growth in the annual volume of sales of the Company has been as remarkable as the growth in its total assets. The sales in 1903 aggregated \$52,065,000; in 1907, \$78,206,000; in 1911, \$108,033,000. The year 1911, therefore, shows an increase of 38 per cent over the year 1907, and 108 per cent over the year 1903. This increase in the volume of business has been obtained principally through the introduction of the "new lines"—wagons, manure spreaders, gasoline engines, cream separators, auto-wagons, tractors, drills, etc., and by the largely increased foreign trade. Foreign coun-

tries are gradually becoming more educated in the use of modern farm machines and are realizing the economies resulting from their use. Consequently, the foreign demand steadily increases, and will further increase with the growth of population and the necessity for intensive cultivation and larger harvests.

Following is a comparison of sales for the years 1903 to 1911, sub-divided into domestic and foreign, which illustrates particularly the growth of the foreign trade:

YEAR	MACHINERY, IMPLEMENTS AND TWINE		MISCEL- LANEOUS	TOTAL
	Domestic	Foreign		
1903	\$39,819,000	\$12,246,000	-----	\$52,065,000
1904	34,368,000	15,349,000	-----	49,717,000
1905	36,193,000	16,914,000	\$2,580,000	55,687,000
1906	42,018,000	20,199,000	5,372,000	67,589,000
1907	46,402,000	24,478,000	7,326,000	78,206,000
1908	41,882,000	24,746,000	5,913,000	72,541,000
1909	50,097,000	28,134,000	8,383,000	86,614,000
1910	56,503,000	34,196,000	10,467,000	101,166,000
1911	56,868,000	42,314,000	8,851,000	108,033,000

NET EARNINGS

The situation in this industry in 1902 was one of the worst which ever obtained in any line of business. The building up of an efficient and harmonious organization,



I H C Gasoline Engines have solved the horse problem



capable of affording the public the right kind of service at minimum cost, was a tedious process, but finally the efficiency of the manufacturing and selling organizations, the wisdom of the Company's expansion into its new lines, and the benefits derived from the extension of foreign trade became apparent in the net profits of the Company.

The following tabulation of net earnings shows the gradual improvement effected during the nine fiscal years which have expired:

Year	Amount	Per Cent to Capital Stock and Surplus
1903 - -	\$ 5,641,181	4.7 per cent
1904 - -	5,658,535	4.6 "
1905 - -	7,479,187	6.1 "
1906 - -	7,346,947	5.8 "
1907 - -	8,080,458	6.3 "
1908 - -	8,885,682	6.7 "
1909 - -	14,892,740	10.9 "
1910 - -	16,084,819	10.9 "
1911 - -	15,521,398	9.9 "

An average net earning of 7.52 per cent per annum.

DIVIDENDS

The more one studies the accounts and finances of any large industrial concern, the more one is impressed with the need of conservatism in establishing adequate reserves for financial protection, in determining net earnings and the amount of such earnings which should be distributed in the form of dividends. This is especially true of a concern like the International Harvester Company, whose destiny must be one of business expansion and credit extension if it is to fulfill the requirements which the world's need for harvesting machinery and farm implements has imposed upon it. It is true to-day, as it has been for the last fifty years, that the owners of the harvester business can only expect to receive a part of the net earnings in cash, the balance being reinvested in inventories and in credits extended to the farming community in order that farm operations may be facilitated and improved.

The total dividends paid during this ten-year period have averaged only 6 per cent per annum—surely a most moderate return for the great risks incurred by capital in an enterprise of this magnitude and character.

ANNUAL REPORTS

The Company, beginning in 1907, has issued each year to its stockholders, the public, the press, and the Government, a detailed report of its financial position and the history of its business for the year. Much of the present hostility to large corporations has arisen because the corporations themselves refused to give the public any real information regarding their business affairs. In the absence of information on which to base judgment, it is not surprising that criticism and denunciation have fallen on the good and bad alike.

It is believed that full publicity coupled with fair dealing toward customers, agents, and competitors, constitutes the wisest and most successful business policy.

Concerning our reports, the Statist, a prominent English financial journal, said on May 25, 1912:

"That the International Harvester Company is perfectly willing to afford all possible information with regard to its business and its financial position is evidenced by the very full reports that are published and advertised, not only in the United States, but also in this country. Hence it is that on the facts of the case the Company has no reason to fear any fair investigation, and it can scarcely be conceived that the United States Government would be willing to do anything to injure a business which is conducted on such creditable lines and which is doing such good work."



The Department of Agriculture has grown until in 1911 the expenditures amounted to \$17,188,339.27



The value of the farms and farm properties of Illinois for 1910 was found to be \$3,905,321,075.



A Side Delivery Hay Rake in the field



Developing a World Market

Perhaps the best illustration of the necessity of large financial resources in the harvester business is shown in the development of the foreign trade. The growth of the foreign trade in agricultural implements is of importance not only to the International Harvester Company and its stockholders, but to all of the people of the United States. The export business of this Company is a substantial factor in establishing a balance of trade in



Count Von Bismarck watching an American Binder at work on his estate

favor of this nation. The average American citizen takes a just pride in the figures representing the export business as compiled by the Government Bureau of Statistics, and appreciates that a favorable balance of trade in the markets of the world is essential to the prosperity of the country, but at the same time, how many of us stop to analyze our country's exports?

Eliminating raw materials, which make a large percentage of the total, we find that agricultural machinery is one of the principal manufactured products exported from this country. If we include the labor employed in producing the materials, such as pig iron, steel, cotton duck, lumber, etc., that enter into the construction of that portion of the International Harvester Company's product that is exported, it would be conservative to say that this Company's exports furnish annual employment to not less than 10,000 men. Glance over the list of export goods for the past year and see if you are able to pick out another industry that will show the export of manufactured goods representing the labor of such a large army.

Harvesting machines were developed in this country, and for years past each of the more progressive manufacturers made efforts to establish an export trade. Two or three of the larger manufacturers felt that they had made substantial progress in establishing their product in foreign markets prior to 1902, although what they accomplished in twenty or twenty-five years of effort was small when compared with the results accomplished during the past ten years' operations of the International Harvester Company. Its export business for the season of 1911 is more than four times as large as it was nine years ago, an increase of four hundred per cent in nine years. To accomplish this it has been necessary to establish and build up a world-wide distributing organization. Today International

"missionaries" are traveling near and far, even to remote countries, explaining and demonstrating the benefits of the use of modern, labor-saving harvesting machinery.

Developing trade in a new territory—particularly in an old country where customs and conditions have held sway for centuries, and where modern harvesting machinery is practically unknown, is at all times difficult and requires a thorough and practical knowledge of conditions, unlimited patience, a large and energetic working organization and sufficient capital to make progress and overcome obstacles. A people who have been reaping their grain by hand for centuries would be supposed to welcome the advent of the modern labor-saving self-binder. Such, however, is rarely the case. The introduction of modern machinery is opposed because it is imagined that it will destroy the market for the labor of the peasants, and this opposition is frequently carried to the extent of destroying the machines. In spite of such opposition branch houses have been established in the various countries; foreign manufacturing and sales companies have been organized; International agents have explained the operation and demonstrated the workings of modern harvesting machinery; field experts have instructed the peasant how to handle and operate his machines.

In the face of all difficulties, the International Harvester Company, through its loyal and energetic organization working against tremendous odds, and thousands of miles from home, has firmly established American harvesting machinery in practically every grain and grass-growing country in the world.

The distribution and care of machines in countries with limited railroad facilities is not an easy matter. Siberia, with an area larger than the United States, has only one railway running for thousands of miles through its center. To get the machines from the factory to the Siberian farmer means the use of steamship



An IHC Manure Spreader on an estate in Russia

transportation, railway transportation, hauling machines for hundreds of miles on sledges in winter, and on wagons of all sorts and descriptions, likewise taking advantage of whatever facilities may exist for transporting machines on the various rivers tributary to the railway.

A president of France recently said that without harvesting machines France could not maintain its standing army. Someone must harvest the grain to feed the nation. During a recent war, provision was made by

the war department of a foreign nation to supply the necessary trains to transport harvesting machinery into the interior of the country at a time when practically all its entire railway facilities were required to transport troops and war materials. Without such machines it would not have been possible to feed the people and the troops and supply the necessary forage for the animals used by its armies in the field.



Using an American Mower behind a team of camels in Southern Siberia

Foreign labor has played an important part in the development of American agriculture, railroads and industries. The importation of American agricultural machines into various foreign countries has released from the fields the best element of emigrants coming to America.

The information obtained by government representatives relative to foreign trade is published in the Daily Consular and Trade Reports. Unfortunately, these reports are not read as widely as are the daily papers; otherwise credence would not be given to the oft-repeated falsehood that American agricultural implements are sold cheaper in foreign countries than they are at home.

These official reports definitely show that the American farmer buys his machines cheaper than they can be bought by the farmer in any other country in the world. Government reports are public documents and are easily obtainable, and yet on the stump and in the press the statement is constantly repeated that Europe is being used as a dumping-ground for American machines, to the injury of the American farmer. The data collected by our Government representatives show conclusively that the farmer in foreign countries pays a



An IHC Disk Harrow drawn by Zebu, the sacred ox of India

substantially higher price for his machines than the price at which they are sold in this country. It could not legitimately be otherwise. The American manufacturer must have his profit on the goods sent for export, and to the American cost price must be added freight, marine insurance, customs duties, landing charges, etc., incurred in delivering these machines from the American factory to the foreign consumer.*

Our Government, during the past few years, has been endeavoring to develop foreign trade by strengthening and improving the consular service and thus bringing to the attention of American manufacturers the possibilities presented in foreign countries. The American manufacturer has not had the incentive, however, to build up foreign markets for his manufactured product that has been given to the development of markets for agricultural products and raw materials. On account of the lack of commercial treaties American manufactured products have been handicapped by discriminating tariffs. The difference between the duties which this Company has had to pay and the amount paid by competing manufacturers outside of the United States, has during the past ten years amounted to millions of dollars. This handicap has become so heavy in some important countries that it has been necessary to build foreign factories in which to manufacture the goods which the Company can no longer manufacture and export from the United States in competition with foreign competitors located nearer to the foreign market, and not handicapped by the maximum duties.

Notwithstanding the necessity of establishing foreign factories and building part of the Company's product in its foreign works, the export of American-made machines from the United States has increased very largely even during the last year, and with reasonable trade relations between this and foreign countries, there is every reason why the export business of the Inter-



A Harvest Scene in Tunis

national Harvester Company should continue to grow and further increase the balance of trade in favor of the United States.

*The sale prices in foreign countries varies according to the amount of customs duties paid and freight charges in the respective countries. All of these facts are shown by the information collected by the Government representatives and published in the Daily Consular and Trade Reports, numbered

3413, March 23, 1909, Page 10

3420, March 3, 1909, Pages 11 and 12

3450, April 8, 1909, Page 3

These facts are also set forth by the Department of Commerce and Labor in Senate Document No. 6, Part 2, for the 61st Congress, first session, under the heading, "Letter from the Acting Secretary of Commerce and Labor, transmitting in response to Senate Resolution of April 5th, information regarding manufactured products which are sold in foreign markets at lower rates than in America." These documents are public and easily obtained and it is therefore inexcusable that any person, politician or newspaper should make or publish statements that are absolutely false.



If you are going to be the independent sort that slams the goods down with a take-it-or-leave-it air, you might just as well begin looking for another job right now.



The clerk who objects to doing a thing because "I wasn't hired to do that," is a clerk who will not be very likely to be promoted to manager this year.



A Constructive Manufacturing Policy

One of the hoped-for economies resulting from the formation of the Company was in the manufacture of its product. As quality was the keynote of the new organization, this problem was not easy to solve. Five large harvester works formed the manufacturing nucleus of the International Harvester Company—the Champion, Deering, McCormick, Milwaukee and Plano works. At all of these plants binders, mowers and rakes were manufactured; and while the designs of the several machines were different, yet the methods employed in the manufacture were practically the same. The product of all of these plants was a seasonable one, and during the summer months these plants were either shut down or working with a very reduced force. This, in itself, tended to increase the cost of manufacture, for the overhead expense—that nightmare of all factory superintendents—was continually going on. The importance of economies in manufacture through improved practice was further emphasized by the fact that raw material and labor were steadily increasing in cost.

As a result it was decided to transfer the manufacture of the Milwaukee line to the McCormick works and the Plano line to the Deering works. This, in itself, was no small undertaking. It meant the transfer of equipment, the rearrangement of the McCormick and Deering works to take on this added manufacture, and the solving of many other problems.

The man on the street would naturally say: "Behold the result of combination. The International Harvester Company soon after acquiring these plants has dismantled the Milwaukee works, throwing over a thousand men out of work, and the Plano works at West Pullman, Ill., putting on the labor market eight hundred to a thousand men, many of whom owned their homes in West Pullman, a suburb of Chicago." If such had been the facts they might have been stored away in the archives for future ammunition of the "trust buster." The real facts, however, are quite different.

The Milwaukee plant from that time on has prospered as it never did before. The officers of the Company realized that modern farming needed small power units and its men had been experimenting and perfecting a line of gasoline engines for the farm. The manufacture of these engines was started at the Milwaukee works. Soon after the cream separator was added to lighten the work of the farmer's wife. The plant has grown by leaps and bounds, new buildings have been erected, and the plant boasts of one of the largest grey iron foundries in the United States; in fact, it today gives steady employment the year round to five thousand men and is the largest manufacturing plant in the city of Milwaukee.

But how about the Plano works? About the time the Company was experimenting with gasoline engines it saw that the American farmer must take better care of his land if he hoped to increase its yield. The old hand method of fertilizing was out of date and a line of manure spreaders was designed and the Plano works

equipped to manufacture them. As at Milwaukee, more land has been acquired and additional buildings have been erected at the Plano works, and it is to-day giving continuous employment to more men than were ever employed there in the old days.

The same story of expansion is true at other works. By the purchase of the Osborne works, the manufacture of tillage implements was added; and at the Sterling works are made the further "new lines" of hay loaders, side delivery rakes and corn shellers.

The plant of the old "Minnie" Harvester Company at St. Paul, which had been standing idle for some time, was bought and equipped for the manufacture of flax twine. A large fortune was spent in experimenting in an effort to make binder twine from American flax. This effort, so far as the manufacture of twine itself was concerned, was a complete success; but the combined efforts of government experts, university experts, the Company, and scores of others could not remove its fascination for the grasshopper. This twine, which is a soft fibre, gave promise of revolutionizing the growing of flax in our Northwest states and increasing its acreage by thousands of acres. The grasshopper decreed otherwise. And so, to the great disappointment of the Company and to the loss of the American farmer, the St. Paul works had to give up the flax twine industry and engage in manufacturing a standard twine.



An interior view of the Tractor Works, Chicago

At the Weber works, in Chicago, farm wagons are manufactured. At Akron, Ohio, the plant of the old Buckeye Company was standing idle. Competition had been too strong for the old Buckeye machines and they were not able to weather the storm. The International Harvester Company in acquiring this property did not do so with the idea of reviving a line of machines that was already off the market, but did feel a moral obligation to make repair parts for the old machines then in use. This it has done according to the demands. Instead of the fifty-four men employed when the Harvester Company acquired it, the Akron works now gives employment to 978 men. Its capacity has been materially enlarged and its product today is an auto wagon.

The manufacture of tractors has demanded increased facilities and a large plant known as the Tractor works

has recently been erected in Chicago adjacent to the McCormick works.

At Hamilton, Canada, an entirely new plant has been built. The demand across the border for American harvesting machines is very large and in building the Hamilton works, that now give employment to 2,636 men, the manufacture of machines in the United States has not been curtailed. Three or four years ago the Company acquired the wagon works at Chatham, Ontario. This plant has been increased in size and capacity and is furnishing employment to a larger number of men than were employed in the old days.

The manufacturing policy for the past ten years has been a constructive one. Each shop has profited by the practices and improvements in other shops. The practices at all of the works are standard, and the men and women are employed the year round. Not one line of goods destroyed or abandoned, no man thrown out of employment, new lines taken on, but 17,756 more men and women are employed in the Harvester works in 1912 than were employed in 1902,* and through it all a conscientious and successful effort to improve the quality of the product. The detail of this branch of the business is tremendous and the organization must



Cream Separators going through their paces prior to being shipped

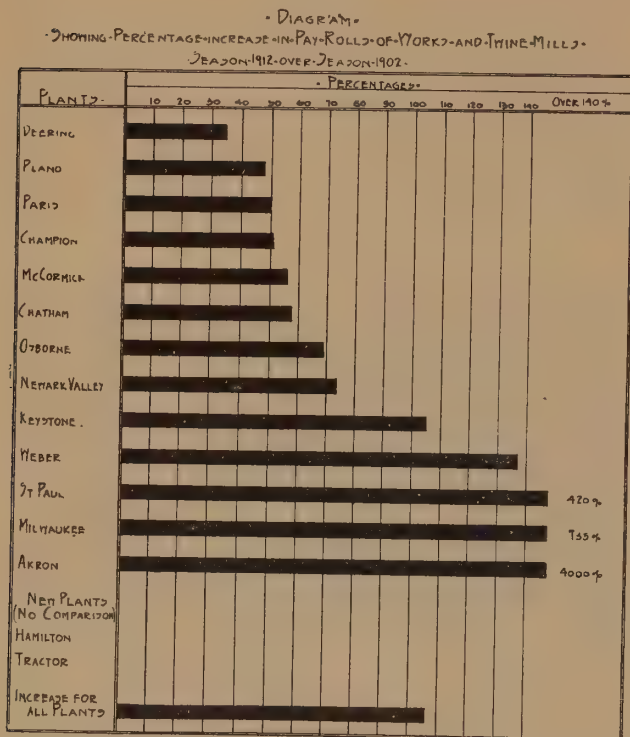
upon to furnish every year to use in harvesting the crops. The following table, showing approximately the quantity of the raw materials used by the Harvester Company in a year, gives a fairly good idea of the magnitude and complexity of the Company's manufacturing problem:

Lumber	-	-	-	-	198,277,271 Feet
Steel	-	-	-	-	293,192 Net Tons
Castings, Grey Iron	-	-	-	-	220,319 Net Tons
Castings, Malleable Iron	-	-	-	-	68,129 Net Tons
Castings, Grey Iron	-	-	-	-	62,438,416 Pieces
Castings, Malleable Iron	-	-	-	-	204,123,913 Pieces
Pig Iron	-	-	-	-	227,168 Gross Tons
Nuts	-	-	-	-	250,000,000 Pieces
Bolts	-	-	-	-	200,000,000 Pieces
Cotton Duck	-	-	-	-	3,428,057 Yards

100,000 freight cars loaded with material are pulled into the Company's yards every year and in turn 80,000 cars of finished product leave its works.

* The figures are as follows:

	Season 1902 Average	Season 1912 Maximum		Season 1912 Average	Season 1912 Maximum
Akron Works	54	978	Deering Twine Mills	887	1046
Champion Works	1510	1703	McCormick Twine Mills	850	1286
Chatham Works	263	337	Osborne Twine Mills	494	649
Deering Works	4601	5349	Petersboro Twine Mills	45	131
Hamilton Works		2636	Internat'l Flax Twine Co.		157
Keystone Works	272	591	TOTAL	2276	3269
McCormick Works	5399	7033	Croix Works		773
Milwaukee Works	596	4633	Lubertz Works		2162
Newark Valley Works	113	162	Neuss Works		672
Osborne Works	1868	2187	Neuss Twine Mills		134
Paris Works	114	246	Norkoping Works		281
Plano Works	995	1183	TOTAL		4022
Tractor Works		1291			
Weber Works	461	658			
TOTAL	16246	28987	GRAND TOTAL	18522	36278



The payroll percentage increase shown above is not entirely due to increase in volume of business, as during the ten-year period there has been a large advance in rates of wages. This increase in wages during the period amounts for all plants to an average of twenty-seven per cent.

be most complete, for it directs an industrial army of thirty thousand. They are better paid, have better working conditions and more opportunities for advancement and sharing in the business than ever before in farm implement manufacture.

Figures are bewildering; and when a statement is made that in the Company's twine mills enough twine is made to tie the earth to the moon with a 5-strand rope and then start on the way back, you get some idea of the amount of string the Company is called

More than one-third of the total value of farm products for the entire country is furnished by the Southern states. Three-fourths of the country's tobacco crop, valued at \$98,000,000, all of its \$16,000,000 rice crop, one-half of \$625,000,000 worth of wheat, all of the cotton crop (which stood second in the row of values of products of the soil for 1910, which had a valuation of \$1,000,000,000) was furnished by the South in the year 1910.

The Development of Raw Material Properties

On the banks of the Calumet river, stands the main plant of the Wisconsin Steel Company—the splendid outgrowth of old Deering blast furnace. The founders of that enterprise had broad plans, including the leasing of two important ore mines on the Messaba range, together with a less important mine at North Freedom, Wisconsin, and the purchase of also a large acreage of coking coal lands in Eastern Kentucky. Plans had been matured and partially developed for another blast furnace, and with it a Bessemer plant, a Blooming mill, and a Morgan continuous bar mill that was to produce about 65,000 tons a year. On this foundation the last ten years have seen built the present facilities of the Wisconsin Steel Company.

Developments at the Hawkins mine have shown that the deposit was much larger than was at first estimated, reaching, in the present judgment of the men in charge, a volume of not less than 20,000,000 tons; and that much of this tonnage is of lower grade than the preliminary explorations indicated. It became, therefore, a subject of no little consideration to discover how this low grade ore could be made available for the blast furnaces it was to supply. Experiments carried on both at the mine and at the South Chicago plant indicated that owing to the sandy structure of the ore it might be possible to wash it and thereby greatly increase the percentage of ore in the recovered portion, and at the same time reduce the silica or sand, which damaged the ore seriously for use in the blast furnaces. Through the courtesy of the management of the washing plant at Coleraine, a considerable tonnage of this low grade ore was commercially washed. These results were so eminently satisfactory that the Wisconsin Steel Company bought the land controlling a small lake, and land between it and the mine, on which to construct a modern washing plant, which together with the connecting rails and mining machinery, has represented an outlay of over \$300,000. This undertaking is now in successful operation, producing between 2,000 and 3,000 tons of concentrated ore per day, and this concentrated ore has proved to be better even than expected. The value of this ore property as a protection for the next twenty or thirty years is thus greater than ever and puts the future working of the steel mills and blast furnaces upon a most substantial basis.

In the mountains of eastern Kentucky on the border land of Virginia, the Company owns five or six thousand acres of coking coal lands, underlying which there

is sufficient coal to supply the steel plant, as at present constituted, for the next half century. The heart of this mountain area was some sixty miles from the nearest available railroad. Through an agreement of the Wisconsin Steel Company to construct a plant of 300 coke ovens upon its ore property, the railroad was persuaded to build sixty miles of railroad to the site of the new Wisconsin Steel Company town of Benham. Here has been constructed a fully equipped mine to feed the coke ovens now nearing completion; and to provide homes for the employees, a town has been built on the sides of the mountain and in the valley, that will take care of a population of from 1,000 to 1,200 people.

The houses for the workmen are of a higher class than is usually furnished in mining towns, all being built upon stone piers, painted and plastered and supplied with running water and electric light. For the general community purposes there are supplied a commissary or store, doing a business of about \$10,000 a month, a hotel for the accommodation of the unmarried clerks and assistant operating men, a church, a school house in which graded classes will be maintained, and an attractive and well-equipped Y. M. C. A. building.

Cleanliness of the premises and of the houses is insisted upon and maintained by a sanitary officer. A doctor and a trained nurse are also employed for the benefit of the community. All these utilities are owned and operated, as are the mines and the ovens, by the Company. One hundred and eighty ovens are already in operation and 120 more, completing the plant, will be finished in August. From this source will be supplied approximately 150,000 tons of coke per annum, or less than one-half the annual consumption of the blast furnaces at South Chicago.

To carry the ore produced by its own mines, or purchased to make a suitable mixture, the Wisconsin Steel Company a year ago put into commission a new specially built ore steamer called "The Harvester," with a carrying capacity of 10,000 tons per trip. This big boat plies the Great Lakes from Duluth to South Chicago, making a round trip every seven or eight days during the period of open navigation which is also the period during which open pit mines can be operated.

The ore requirements of the works are approximately 700,000 tons annually, which must be brought down during six or seven months of navigation. The unloading of this ore from the hatches of the ore steamers, was done ten years ago by a very inadequate and slow hand device for raising the ore and putting it into wheel-



A bird's eye view of the Wisconsin Steel Company's Plant

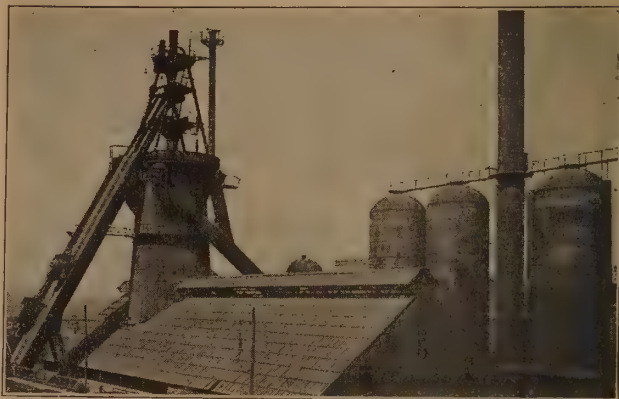
barrows and running it back on trestles where the ore was dumped by hand upon the reserve piles. Today this is done by a complete modern electrically operated equipment of ore-handling machinery, consisting of three unloaders running upon tracks up and down the face of the dock, and two immense ore bridges also running upon elevated tracks to pick up the ore when dropped from the unloading machines and to carry it back to the stock piles which the "bridges" span.

There was also built a pig casting machine so that the Sunday iron and any casts of iron during the week not required in its molten state for the steel making operations could be handled by pouring direct from the vessels which bring the molten iron to this pig casting machine, and delivering it at the end of the continuous traveling steel moulds into cars placed ready to receive them at the other end of the pig casting house.

The operating organization at the steel plant has developed and improved the mills so that where the first bar mill was built with the expectation of producing some 65,000 tons of steel per year it has been made to produce nearly 100,000 tons, and the new mill has passed that output.

Recently it has been decided to build what is known to the trade as a jobbing mill. This will have certain continuous mill features which will lap over, in the sizes it produces, both the No. 1 and the No. 2 mills, and will greatly increase the ability of the plant to get out quick or short orders for the Harvester Company and the other customers of the Wisconsin Steel Company. All the product of this plant does not go to the Harvester Company as the policy of the management has been to make a comparatively small range of sizes requiring only three or four mills, and to operate them in large volume at lower costs. The Harvester Company buys a large tonnage of various specialties and sizes not produced at the Wisconsin Steel Company's plant, and the Wisconsin Steel Company in its turn produces a considerable excess tonnage of the sizes it is built to make, and sells this surplus on the open market. One of the most important outside customers of the Wisconsin Steel Company, who takes from that source 2,000 to 3,000 tons per month, said that the steel furnished by the Wisconsin Steel Company was the best he had been able to secure from any source. Such an unsolicited statement is a source of satisfaction because it shows that the iron and steel

used in making International machines, are unexcelled in quality and character. The International Harvester Company claims, without fear of dispute, that its machines are built of the best material.



A part of the Steel Mill from a nearer view

⊗ ⊗

To the man whose ambition is backed by cool determination, obstacles are only the stepping stones to success.

⊗ ⊗

Read much and carefully; think deeply; and don't hesitate to make use of the ideas that other men have advanced.

⊗ ⊗

Earnestness is the best gift of mental power, and deficiency of heart is the cause of many men never becoming great. — Bulwer.

⊗ ⊗

There are no snaps in the business world. Any time that you have spent in looking for one is so much wasted out of the limited supply available for making success.

⊗ ⊗

If you want to become a trusted employe, one whom the boss will depend upon, you will have to do more than avoid evil; you will have to avoid the appearance of evil.



The Coke Ovens at Benham, Kentucky



Perfecting I H C Machines

The Experimental Department is where the machines manufactured by the Company are invented, designed and perfected; where the specifications are prepared and where all the information necessary for the manufacturing department is compiled; in other words, it is the nerve center of the factories.

At the time the International Harvester Company came into existence, there was at each of the factories it purchased, a well-organized department employing skilled designers, draftsmen, and workmen, whose duties consisted of designing new machines and improvements, testing them out under every possible condition and turning over to the factory complete specifications,



Experimenting on hay machines

drawings, and patterns. One of the first problems that confronted the management of the International Harvester Company was to knit these various groups of designers into one cohesive department. The members of this department must not only have inventive ability but be thoroughly familiar with the manufacturing methods.

Their usefulness depends to a large degree on their long experience in the grain fields and meadows, not only in this country, but in almost every civilized country.

HARVESTING MACHINES

Prior to this time, when every factory operated under separate management, the experimental men could only compare the machines they designed with other machines in a limited way, and under difficult conditions. The comparisons were very often made with prejudice, and the true facts were not always made plain, either to the men or their employers. Under the new management, interesting, continuous, and earnest field tests were made through the entire periods of harvest. The designer of one harvester soon found that his old-time competitor with the other harvester, now his co-worker, had beaten him in one detail or another. Confidences were exchanged, and as these field tests progressed, each man was enabled quickly to bring his own work up to an equality with that of the others in features which before were more or less defective. Several of the harvesters were rebuilt either entirely or in part, so that at the present time the six distinct types of harvesters made by the International Harvester

Company have been brought to a higher state of perfection than ever before; all are at a practical parity in efficiency, and yet retain the distinctive features upon which their reputations were based in the early days.

These harvesters are now more durable than they were before; some were too heavy and have been safely made of lighter weight. One or two were too light for heavy work, and have been made heavier. All of them can handle the heavy crops of Western Canada, and Europe with equal efficiency.

This was not all accomplished in a year or two, but it is unquestionably true that on account of the increased facilities, due to the co-operation of these various groups of men, there has been more progress made in perfecting and improving agricultural machinery than during any equal prior period.

The machine next in importance to the harvester is the mowing machine. It is a simpler machine, and for the very reason of its simplicity is, in some respects, more sensitive in its design. The hay crop of the world is larger than any other, and the mower is used under more varying conditions than any other agricultural implement.

The same process of comparative test and development has been applied to the mower. During each succeeding summer of the past ten years, a group of men from the experimental department, one or more from each factory, have followed the various mowers while cutting grass in the sand hills of Nebraska, alfalfa in the southwestern states, and the Argentine, and in the clover fields of Switzerland and Germany, Indiana, Ohio and elsewhere. The methods being the same as applied to the harvester, the results were equally satisfactory.

Perhaps there will be some reader of this article whose boyhood days were spent on a farm, and who will remember how the freedom of vacation time was very much curtailed by hurried trips to the neighboring village to get a broken mower pitman repaired or replaced, who has distinct recollections of how sickles broke and sections loosened, and whose arms and back still ache



An Experiment Room at one of the I H C plants

as he thinks of the hours spent in turning the crank of a grindstone while his father ground each section to a razor edge in savage attempts to persuade that pesky mower to cut the tangled clover back in the orchard. If the reader's experience and memory runs in such

directions, he will appreciate the enterprise of the International Harvester Company in its efforts to perfect its mowers, and the perseverance of this group of mechanics who have untiringly worked out the problems of making a line of mowing machines light enough to be easily drawn day after day by a team, and yet efficient under all conditions, and at the same time durable in every sense of the word.

Reference has been made to the use of harvesters and mowers in foreign lands. One cannot appreciate always what it means to the designer of implements to be asked to adapt machines to foreign use. The customs and habits of the different nations present perplexing problems to the American implement maker. The intensive farming methods of the small peasant



Deering Drills in Siberia — An I H C experiment demonstration

farmer of France and other European countries, are exacting upon the capacity and reliability of any but the most perfect implements. The German farmer, to whom the American quarter section is an empire, compared with his own small holding, rolls his meadow until it is as level as a floor, and cannot be satisfied with a stubble that is longer than a quarter of an inch. The Dane who sees any heads of rye lying on the ground, or the rye straw damaged, promptly condemns the harvester that fails to come up to his standard of excellence. All over Europe four-footed animals, from dogs to dromedaries, are used to draw implements, and a set of harness as a man from Indiana knows it, is unknown in many parts of Europe. These are a few reasons why some members of the experimental department of the International Harvester Company take life very seriously!

Ten years ago, there were but few of the factories now owned by the International Harvester Company, whose products found ready sale in foreign countries, but now, owing to its policy of bringing every machine it makes to the highest state of perfection, a large proportion of each of its factories are made to fill export requirements.

The hay rake is one of the minor farm implements, yet it occupies an important place of usefulness on each farm the world over. The International Harvester Company manufactures hay rakes by the thousands, and its experimental department has in the past decade re-designed the six different kinds of rakes that form part of the I H C line, to the end that the rakes are now handier to use, lighter in draft, and easier on the teams than ever before.

The reaper is now generally considered an old style machine, but the International Harvester Company, through its experimental department has brought this self-rake reaper strictly up to date, in each of the six varieties that it makes and has nearly tripled its output of this type of harvester in the old countries.

CORN HARVESTING MACHINERY

Indian corn is the great American crop, and is also the most difficult to harvest by machinery. The methods of handling this crop differ in various sections of the country.

In the dairy districts and in the more thickly settled portion of the country, the corn is cut so that the leaves and stalks can be utilized for fodder, but in a large part of the corn belt the corn is picked off the stalks, which are left standing, and are only utilized in the late fall for pasture in a desultory way.

Three of the factories of the earlier harvester companies, the McCormick, Deering, and Osborne, had been making corn binders. The present experimental department has spared no effort to improve still further these very useful implements, the result of which has been that in the past year when many sections of this country experienced an unusual drought, many thousand I H C corn binders were purchased by American farmers, who were enabled to utilize their corn crops for fodder, and many of whom learned for the first time to appreciate the value of the stalks and leaves of the corn crop.

It will still be true, however, for many years to come, that in a majority of the sections of the country where corn is raised, the ears will be picked from the standing stalks and the stalks only partially utilized for fodder. This fact was appreciated by the International Harvester Company, and about ten years ago two members of the experimental department were encouraged to persist in their efforts, previously commenced, to produce a practicable machine for picking ear corn from the standing stalks. This work was carried on year after year with slowly increasing results, some disappointments, and at a great expense. Everyone knows of the great variation in field conditions of the corn crop. The stalks grow in height varying from three to twelve feet, the ears vary in length and weight, and so on, without end. The experimental department persisted in its efforts, however, and with success. It has developed two distinct types of corn pickers, which are adapted to be drawn along a row of corn, the stalks passing between two inclined rollers, which pinch the ears therefrom. The snapped ears are



Wagon makers at Nairobi, Africa — not connected with the I H C

conveyed through the machine over husking devices, and into a wagon driven alongside of the machine. The use of the Deering and McCormick corn pickers reduces the cost of harvesting the crops at least 50 per cent.

Corn shredders are machines that find a ready sale in the dairy districts, being the only machines that prepare the fodder so that a large proportion of the leaves and stalks are utilized, at the same time husking the corn ears properly so that they can be stored in the crib.

Ten years ago the International Harvester Company had but one line of satisfactory shredders, that is, a

line of shredders that would shred the fodder and husk the ears in sufficient quantities to be economical to the farmer. The experimental department at once focussed the attention of its experienced shredder men on these machines. The results were that in a few years the customers of the International Harvester Company were enabled to choose from three distinct types of shredders, and the sale of these machines is increasing yearly.

TILLAGE IMPLEMENTS

After the organization of the International Harvester Company, the Osborne plant at Auburn, N. Y., was purchased thereby acquiring a single line of tillage implements.

This line, consisting of disk harrows, spring tooth harrows, cultivators, and smoothing harrows, was no sooner placed upon the market by the Company than it began to receive requests from dealers handling the other machines it made, for harrows and cultivators of the now generally recognized standard of perfection of the I H C.

In a short time the experimental department developed and perfected other lines of tillage implements until it became necessary to enlarge the original Osborne factory, to equip another factory in the West to supply the demands of the new Eldorado of the Canadian Northwest. Imperial Russia, the Argentine and the old countries of Western Europe, press their demands for International tillage implements, at the same time that Siberia, Australia and South Africa insist that their orders be filled.

As the years go by, the experimental department is constantly adding varieties of harrows and cultivators to suit the special needs of foreign countries, and domestic districts, and has met with success so generally, that the page of history relating to tillage implements is considered one of the brightest.

FARM GASOLINE ENGINES

In search for new tools and appliances by which to help the farmer in his work, the Company took up the development of these engines and rapidly developed a line of gasoline engines, varying in size from 1-horse power to 50-horse power. This line of engines was no sooner perfected than a field for gasoline traction engines was apparent, and the experimental department succeeded in producing gasoline traction engines, the demand for which exceeds the supply, although a new factory has been erected in Chicago for the purpose of manufacturing tractors, and the engine factory at Milwaukee has been greatly enlarged in an effort to meet the demand.

OTHER LINES

The experimental department has also developed a triple line of cream separators. Although this machine was along entirely novel lines, its success was almost instantaneous with the introduction of the new cream separators, so that the International Harvester Company now largely leads in this class of machinery, both in quality and in the number of machines built and sold.

Hay presses next demanded the attention of the experimental department, and after a thorough study of the requirements the country over, a very successful and capacious line of hay presses was perfected and marketed. This work culminated in the International motor press, a type of press that has a

self-contained engine, is extremely mobile for use on the hay ranches of the Southwest, and which many manufacturers have striven to copy, but which none have been able to equal, to say nothing of excelling.

Grain drills constitute another class of farm machinery that has claimed the attention of the experimental department, and good results have been secured in the Northwestern grain fields of this continent, and in Australia, South Africa, and South America. The latest territory invaded by International drills was Russia, and its great dependency, Siberia.

The usefulness of a comparatively new farm machine, the manure spreader, became evident and the experimental department was directed to produce two lines of efficient, durable and capacious spreaders. During the period of this development, a third line, the Kemp, was purchased, so that to-day the International Harvester Company has four factories where manure spreaders are made.

Other machines have been perfected, and are made in large quantities, such as rice harvesters, sweep rakes and stackers, side delivery hay rakes, hay loaders and feed mills. The latest machine developed is the I H C corn planter, a modern planter in every sense of the word, and one that is rapidly taking its place among the leading machines of its kind.

EXPENSE

This large amount of work has not been done without large expense. On an average, \$500,000 has been spent each year by the experimental department, and the entire department now numbers upwards of 200 men.



The most of the nation's undrained swamp lands are found in the South, and comprise an area of 74,000,000 acres, which is sufficient to cover the States of Illinois, Indiana, and more than half of Ohio.

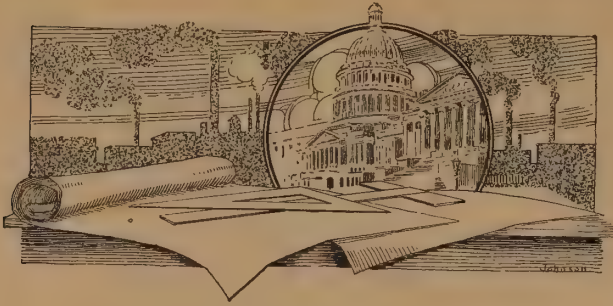


The value of all farms and farm properties in the United States in 1850 was \$3,967,343,580; for 1910, \$40,991,449,090.



Women Laborers in the Congo Free States. Modern farm machines have driven sights like these from American fields

THE HARVESTER WORLD



Patents

The predecessors of the International Harvester Company established a liberal policy in regard to patents, and this Company has showed a still greater willingness to license competing manufacturers, and at low royalties.

As an instance: Up to 1885 bundle carriers, although long known, had not become an essential part of a harvesting machine. One of our predecessors became



An old-time Corn Planter

possessed of the basic patents covering the falling tooth sheaf carrier. It licensed all comers, whether large or small manufacturers, to make and sell carriers of that type. It might have controlled the carrier for many years by patents covering improvements. Since 1885 a harvester could not have been sold which did not have as a part thereof a good bundle carrier yet the predecessors began and this Company continued to license under the basic patents, and all patents covering improvements founded thereon, for a very small sum.

Many instances might be cited to show that monopolies provided for by our patent laws have not been taken advantage of by this Company.

Our patent laws make possible a close-fisted monopoly, but this Company has treated with its competitors on a fair, reasonable basis.

Patent monopolies in harvesting machinery ceased to exist many years ago. The basic patents covering the knot-tying and twine-holding devices, for instance, expired in 1882.

The patents covering the automatic sizing of the gavel whereby binders might deliver bundles of uniform size, expired in 1887 and in 1892.

The basic patents covering the elevating harvester which made the automatic binder possible, expired in 1874.

The patents covering adjustable reels, now universally demanded, had all expired early in the '90's. Since that time all patents granted have covered mere details.

And what is said of grain harvesting machines is also true of grass cutting machinery.

The patents covering means for causing the cutting apparatus of mowers to move lightly over the ground expired late in the '90's.

What is true relative to grain and grass harvesting machinery is also true in respect to other lines of manufacture carried on by the International Harvester Company. There are horse rakes, turn-over rakes, hand-dump rakes and horse-dump rakes—monopolized by inventors and manufacturers to a considerable extent a generation ago, but all now open to the public.

The internal combustion engine, gasoline engine as it is often called, was invented and perfected many years ago, and the public avails itself of rights released to it under our patent laws by expiration of patents. There are now hundreds of builders in that line in the United States.

Steam traction engines are very old. To take a steam engine from the framework of a traction engine and apply another form of engine—a gasoline engine—did not involve invention. Tractors have been improved, but no builders hold a monopoly.

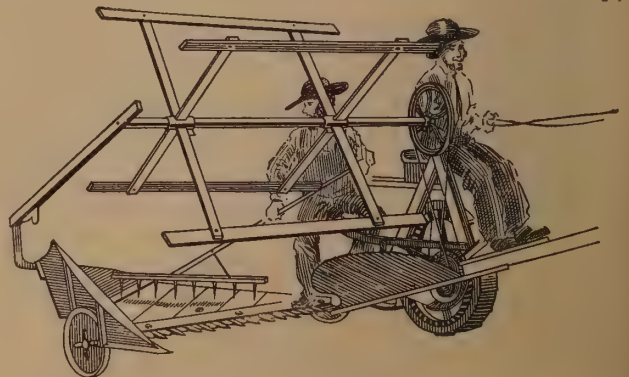
The use of heavy oils and light oils as fuel for the engines, which followed, is free to all.

The specific forms of carburetors are covered by limited patents. The advertising columns of many makers claim exclusive rights, but those rights are trifling. If makers cannot use one form, they can use another.

The dairy appliances are all open to the public, the basic patents having expired.

This Company has obtained some new patents where it has taken on new lines. For instance, when it purchased a factory that had long been in the tillage line, one of the most important patents purchased covered a spring tooth harrow, its parts so combined as to avoid clogging of the teeth. The patent covering this device it immediately licensed to competing manufacturers at a royalty of twenty-five cents per harrow.

As early as 1894 efforts were made to apply power to harvesting machinery, first building mowers and then grain harvesting machinery with power applied thereto. As the operations of the farm required cheaper and more dependable power than horses for stationary work, this Company took up gasoline engines extensively,



Drawing of a Reaper taken from a catalogue issued in 1858

and applied these to tractors, thus substituting power for horses in pulling plows.

In the development of the cream separator only a few patents were obtained, covering its minor details, and the cream separator business, as every other farm line, is practically open to the public.

There can be no patent monopoly in agricultural lines. On grain and grass harvesting machinery, about ten thousand patents have been granted; on tillage tools probably more; on hay rakes, several thousand; on cream separators, several hundred; on grain drills and seeding machines several thousand; and on manure spreaders many hundred patents have been granted.



A Binder of the early eighties—note the wooden frame

Every agricultural branch long ago passed the time when basic patents controlled, and the International Harvester Company has brought but one suit for infringement of its patents, and that only in a case of flagrant infringement. The Company has bought very few patents from the outside, and none to shelve.



A modern Binder on a modern farm



The average value of all farm property per farm in 1850 was \$2,738 as compared with \$6,444 in 1910.

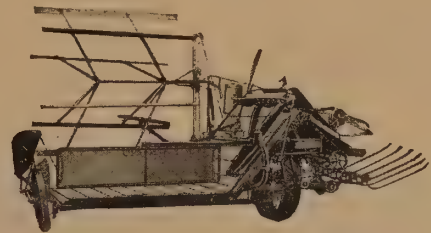
The population of the United States in 1850 was 23,191,876; in 1910, 91,972,266.



A powerful yet clumsy Binder still in use after thirty years—compared to the



The total number of farms in the United States in 1850 was 1,449,073; in 1910, 6,361,502.



latest modern steel frame Grain Binder



The total area of land in farms in 1850 was found to be 293,560,614 acres; in 1910, 878,798,325.



A Tractor plowing demonstration—It is by following these machines in the field that they are perfected



I H C Standard of Quality

To review in detail the progress made by the International Harvester Company in securing the highest quality in both raw material and finished product would cause the reader to wonder why so much care should be necessary in the manufacture of agricultural machinery. The answer is that all this care and watchfulness, this insistence upon greater strength where strength is



A Row of Binder Testers—each knotter must do its own work perfectly before it leaves the shop

needed, less bulk where bulk is useless, the reduction of the complex to the simple, the minimizing of friction, and the elimination of lost motion, represent the spirit of the age in the production of greater efficiency. It is good business to produce good merchandise and the attainment of this end can be secured only through the best efforts of a capable organization, an organization which must of necessity include planners, advisers, disciplinarians and executives, all working together under the banner of stimulated co-operation.

One result of this organization, of its never-ceasing protest against the theory of "letting well enough alone," is seen in the making of specifications governing the purchase of raw materials. The world is not moving ahead and leaving the farmer behind. Therefore nearly every plant is fully equipped with a chemical laboratory and the best known devices for testing material.



Testing I H C twine—This twine is guaranteed to be of a certain strength and so many feet to the pound

The product supplied by the Company's steel mills, and saw mills, is checked and inspected by the various works with just as much care and in the same manner as are other shipments of steel and lumber. That the inspection system now in force at all works has materially enhanced the value of all I H C farm machines is well known to progressive farmers throughout the world. The higher efficiency of the machines has impressed itself to a marked degree. Durability has been greatly increased, breakage of parts has been practically eliminated, failures have been discarded, half successes have been made a hundred per cent effective. Large sums of money might be saved through a less severe inspection system, which would mean going back to the old ways, but on the contrary specifications governing both the purchase of material and its inspection are constantly being made more severe.

The International Harvester Company carries the



A Chemical Laboratory in which the quality of iron and steel are determined

largest stock of seasoned lumber in the world. This is only possible through great resources. No material entering into the manufacture of agricultural machinery is more essential than the wood parts, and no person responsible for the quality of I H C machines is permitted to overlook this very essential feature. Lumber is almost the only material entering into the manufacture of farm machinery which is not itself manufactured to a fixed standard of quality. Therefore, lumber is never used, no matter how unimportant the use may seem, except that it is thoroughly seasoned.

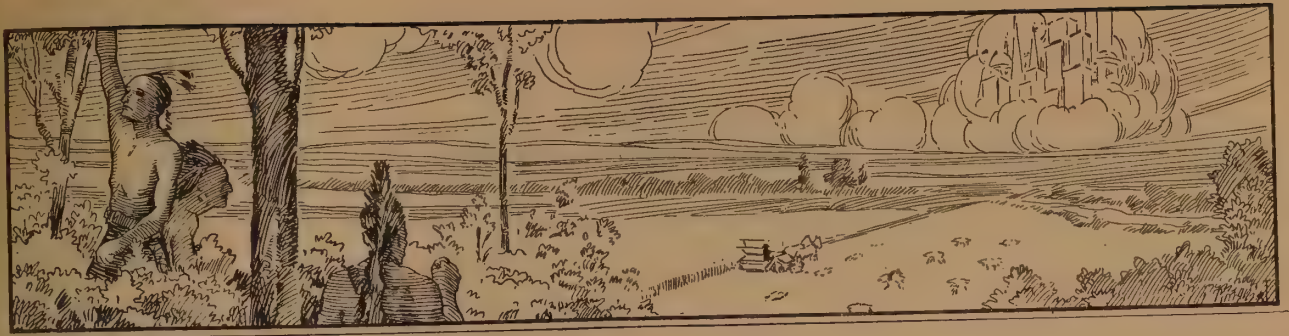
Another logical result of these inspection methods is less and less demand for experts to adjust or repair machines in the field.



Nothing else is so useless to a fluent talker as facts.



Inspecting the quality of I H C lumber—Millions of feet are inspected each year



The Farmer and the Company

From time immemorial the human race has been dependent upon wheat as its main source of sustenance. Especially is this true as nations have become more civilized. Inasmuch as bread is such an impor-

sources of information and education in showing the economy which can be attained in operating a farm.

The old idea of running a farm was also the old idea of running a manufacturing plant. The chief end was simply to get out product, but in the course of years it has been demonstrated that there is great



Harvest hands in Italy before the modern harvesting machines



Harvesting in Italy at the present time

tant factor in our daily life and being, the circumstances surrounding the production of this great commodity are always of deep interest, and the development of the facilities for making and distributing this staple has become a most important factor in the world's progress.

The origin of wheat is not known, although it is thought by some to have been developed from early and primitive cereals in the valleys of the Euphrates and the Nile.

Two conditions have made the struggle for bread in the past pressing and strenuous; one is the uncertainty of the weather conditions and the other is the problem of manual labor—a surplus in one country or locality and a great lack in another. It is only since the invention of the reaper, and later the development of the self-binding harvester, that mankind's millennial struggle has been alleviated. Even now it continues in

economy both to the farmer and to the manufacturer in having his plant well equipped with the latest machinery, economically and carefully handled, and kept scrupulously clean and neat, and in good working order. The farmer today is a business man and wants to balance his books carefully at the end of the year. The same is true of the manufacturer and each desires to give his men the longest employment possible during the year and to do as much as possible with machinery. This in no wise reflects on the value or earning capacity of labor, but simply permits labor to get more results in a good day's work, and to receive



Such a field as this was impossible prior to the Reaper. Picture taken at Wheatland, Wyo.

many countries where peasant and peon toil for the bare necessities of life, and modern farm machinery is unknown.

Intensive farming has come into practice as the great farms of the West have been made smaller; and also through the activity of the government and other



200,000 Bushels of Wheat awaiting shipment in Oregon

more money for this effort. It is a fact that the labor market in general, whether on the farm or in the factory, has steadily and continuously increased in money paid per day. This reflects the prosperity of the country and the total value of its output, whether in produce or in implements. The development and increased values of farms determine the future of manufacture and the reverse is equally true.

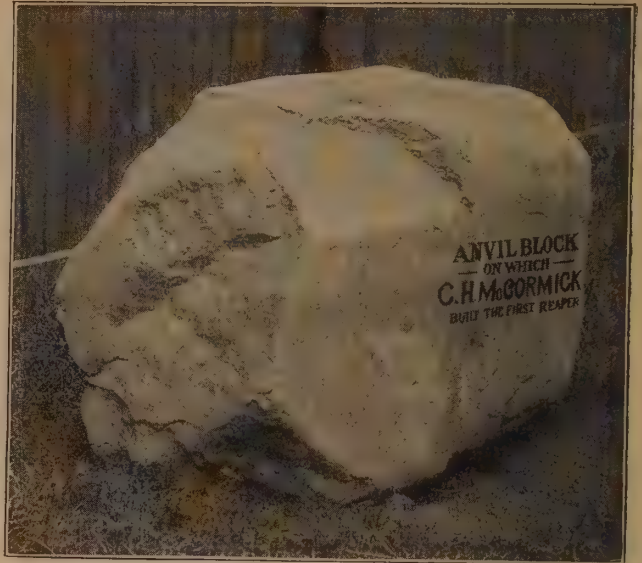
Thus, the International Harvester Company, apart from the business gain to be attained by it, finds itself engaged in an industry which, in the belief of those connected with it, plays a great part in the world's advancement and enjoys the distinction of participating in the fundamental development of the countries in which it operates.

Tremendous progress has been made by the American farmer during the last ten years. The farm of today could hardly have been forecasted ten years ago. To say nothing of the economy in harvesting crops, we might mention the general use of electricity and sanitation in the farm house, the use of the gas engine led around to perform its various functions, quite as the horse of times gone by and at present in decadence; and the facility of the farmer to do his work with less drudgery, hardship and uncertainty.

While our business does not directly touch the housewife in her vocation as it does the farmer, her conditions and surroundings have been improved by the development of the gas engine to facilitate her washing, and the making of butter, her use of the cream separator, and she has been freed entirely from working in the harvest field.

We have been immensely gratified at the friendliness displayed towards our Company by the farmer, who while at first reluctant to believe in the sincerity of the Company's co-operative attitude, has become convinced of our ability and disposition to be of real benefit to him and is taking advantage of it. The confidence of the local merchants in the farm machine business is a source of pride and pleasure to us. The local merchant is the important mainstay of the farmer. The stock of our machines and repairs carried at the store of the

local dealer insures to the farmer immediate access to repairs and supplies. The farmer, the local dealer and the Company are, therefore, three factors, each in a very large measure dependent upon the welfare of the other and each growing to have a single purpose in view—the general welfare of all.



A primitive Work-bench



The total value of livestock in 1850 was \$544,180,516; 1910, \$4,925,173,610. The average value per acre for livestock in 1850 was \$1.85, while in 1910 it was \$5.60.



North Carolina spends a little less than \$4,000,000 annually on her common schools. A decade ago this was a little over \$1,000,000.



Spreader delivery by Nailing-Keiser Co., Union City, Tenn.—A type of the up-to-date dealer

	MASSACHUSETTS NEW YORK PENNSYLVANIA	VIRGINIA NORTH CAROLINA SOUTH CAROLINA	IOWA INDIANA ILLINOIS	ALABAMA LOUISIANA MISSISSIPPI
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AVERAGE ANNUAL
INCOME PER
FARM WORKER



\$184



\$189

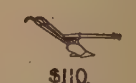
AVERAGE NUMBER
ACRES CULTIVATED
PER FARM WORKER



AVERAGE VALUE
FARM IMPLEMENTS
PER FARM WORKER



\$22.



\$36.

AVERAGE NUMBER
OF HORSES AND MULES
PER FARM WORKER



.77



.91

AVERAGE NUMBER
MILK COWS
PER FARM WORKER



.56



.59

AVERAGE AMOUNT
RECEIVED FROM SALE
OF LIVE STOCK FOR
FARM WORKER



\$23.



\$13.

A pictorial chart of values



The Wealth Builders of the Nation

In 1911 the American farmer produced the following crops:

Corn	-	-	-	2,776,000,000 bushels
Cotton	-	-	-	15,692,000 bales
Hay	-	-	-	47,444,000 tons
Wheat	-	-	-	656,000,000 bushels
Oats	-	-	-	874,000,000 "
Potatoes	-	-	-	282,000,000 "
Barley	-	-	-	146,000,000 "
Tobacco	-	-	-	800,000,000 pounds
Flaxseed	-	-	-	22,000,000 bushels
Rye	-	-	-	31,000,000 "

Of the world's chief crops the United States last year produced 70 per cent of the corn; 24 per cent of the oats; 18 per cent of the wheat, and 50 per cent of the cotton—or 31 per cent of the world's chief agricultural products.

The American farmer today is independent and prosperous; his wealth is most secure and increasing; he is the balance wheel and wealth-builder of the nation; and he is living a more happy and contented life than ever before.

Interurban railroads and the telephone have brought the farm home into touch with the larger towns and cities. Many farm homes today are lighted with elec-

tricity, and the gasoline engine makes possible an abundant and convenient supply of hot and cold water, with all the conveniences of city homes.

Today the farmer works with brain as well as hand, and keeps himself informed through daily papers and standard publications. He wears better clothes and eats better food than his misguided brother who drifted to the city, and the banker counts him among his best customers.

Today there are 6,361,502 farms in the United States.

These farms embrace a total of 878,798,000 acres, 478,452,000 acres of which are improved.

The farm area represents a little less than one-half, or 46.2 per cent, of the total land area of the country. The improved land area represents more than one-half



The United States produces 70 per cent of the world's corn crop



or 54.4 per cent of the total area in farms. The improved land area, therefore, represents about one-fourth of the total land area of the country.

The table presented herewith shows among other things the number of farms, area of farm land, and value of farm property in the United States, as reported by the director of the thirteenth census:

It there appears that the total value of farm property in 1910 was the prodigious sum of \$40,991,000,000. More than two-thirds of this sum represents the value of the land; one-sixth, the value of buildings, and the remainder the combined value of livestock and farm equipment.

	1910 (April 15)	1900 (June 1)	Increase	
			Amount	Per cent
Population	91,972,266	75,994,575	15,977,691	21.0
Urban population ⁽²⁾	42,623,383	31,609,645	11,013,738	34.8
Rural population ⁽³⁾	49,348,883	44,384,930	4,963,953	11.2
Number of all farms	6,361,502	5,737,372	624,130	10.9
Land area of the country ⁽¹⁾ , Acres	1,903,289,600	1,903,461,760	-172,160	-
Land in farms, Acres	878,798,325	838,591,774	40,206,551	4.8
Improved land in farms, Acres	478,451,750	414,498,487	63,953,263	15.4
Average acreage per farm ⁽¹⁾	138.1	146.2	-8.1	-5.5
Average improved acreage per farm	75.2	72.2	3.0	4.2
Per cent of total land area in farms	46.2	44.1		
Per cent of land in farms improved	54.4	49.4		
Per cent of total land area improved	25.1	21.8		
Value of farm property, total	\$40,991,449,090	\$20,439,901,164	\$20,551,547,926	100.5
Land	28,475,674,169	13,058,007,995	15,417,666,174	118.1
Buildings	6,325,451,528	3,556,639,496	2,768,812,032	77.8
Implements and machinery	1,265,149,783	749,775,970	515,373,813	68.7
Domestic animals, poultry and bees	4,925,173,610	3,075,477,703	1,849,695,907	60.1
Average value of all property per farm	\$6,444.00	\$3,563.00	\$2,881.00	80.9
Average value of all property per acre of land in farms	46.64	24.37	22.27	91.4
Average value of land per acre	32.40	15.57	16.83	108.1

(1) A minus sign (—) denotes decrease

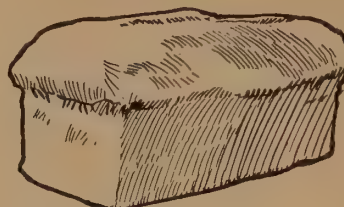
(2) Population of incorporated places having 2,500 or more inhabitants in 1910. The figure for 1900 does not represent the urban population according to that census but is the population in that year of the territory classified as urban of 1910.

(3) Total, exclusive of urban.

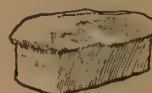
In order that we may study the steady growth of the farm property values, we present another table below giving the number of farms, area of farm land, and value of farm property in the United States by decades from 1850 to 1910:



50 per cent of the world's cotton crop



18 per cent of the world's wheat crop



increased values is to be found in the implements and machines, which enable the farmer to do his work better—to do it with more brains and less brawn. The drudgery and irksome tasks have gone from the farm

Thus, notwithstanding the decrease in the average size of farms, the value of all farm property per farm increased from \$3,563 in 1900 to \$6,444 in 1910, or 80.9 per cent.

During the last decade farm lands increased in value 118.1 per cent—that is, the increase in farm property values during the last decade amounted to more than the total value of farm property in 1900.



24 per cent of the world's oat crop



and the value of our agricultural products represent



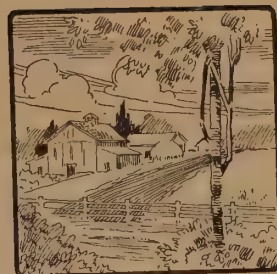
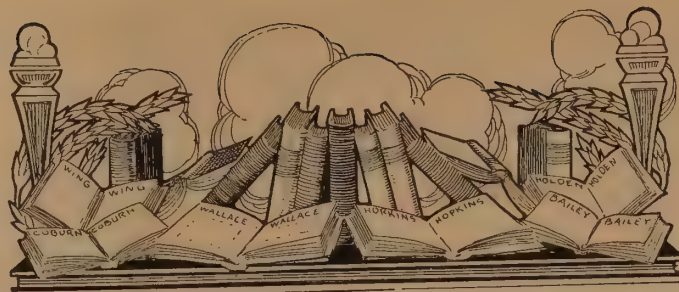
31 per cent of the world's total production

During the same time the value of farm buildings and equipment increased 77.8 per cent and the value of livestock increased 61.1 per cent.

Last, but not least, the increased investment represented by the more general use of agricultural implements and farm machines amounted to 68.7 per cent.

forever, because of the inventors and manufacturers of the implements and machines which now do the work of the farm, increase its productivity and lessen the cost of tillage, seeding and harvest.

	1910	1900	1890	1880	1870	1860	1850
Population	91,972,266	75,994,575	62,947,714	50,155,783	38,558,371	31,443,321	23,191,876
Number of all farms	6,361,502	5,737,372	4,564,641	4,008,907	2,659,985	2,044,077	1,449,073
Land area of the country, Acres	1,903,289,600	1,903,461,760	1,903,337,600	1,903,337,600	1,903,337,600	1,903,337,600	1,884,375,680
Land in farms, Acres	878,798,325	838,591,774	623,218,619	536,081,835	407,735,041	407,212,538	293,560,614
Improved land in farms, Acres	478,451,750	414,498,487	357,616,755	284,771,042	188,921,099	163,110,720	113,032,614
Average acreage per farm	138.1	146.2	136.5	133.7	153.3	199.2	202.6
Average improved acreage per farm	75.2	72.2	78.3	71.0	71.0	79.8	78.0
Per cent of total land area in farms	46.2	44.1	32.7	28.2	21.4	21.4	15.6
Per cent of land in farms improved	54.4	49.4	57.4	53.1	46.3	40.1	38.5
Per cent of total land area improved	25.1	21.8	18.8	15.0	9.9	8.6	6.0
Value of farm property, total	\$40,991,449,090	\$20,439,901,164	\$16,082,267,689	\$12,180,501,538	\$8,944,857,749	\$7,980,493,063	\$3,967,343,580
Land and buildings	34,801,125,697	16,614,647,491	13,279,252,649	10,197,096,776	7,444,054,462	6,645,045,007	3,271,575,426
Implements and machinery	1,265,149,783	749,775,970	494,247,467	406,520,055	270,913,678	246,118,141	151,587,638
Domestic animals, poultry, and bees	4,925,173,610	3,075,477,703	2,308,767,573	1,576,884,707	1,229,889,609	1,089,329,915	544,180,516
Average value of all property per farm	\$6,444.00	\$3,563.00	\$3,523.00	\$3,038.00	\$3,363.00	\$3,904.00	\$2,738.00
Average value of all property per acre of land in farms	46.64	24.37	25.81	22.72	21.94	19.60	13.51
Average value of land and buildings per acre	39.60	19.81	21.31	19.02	18.26	16.32	11.14



The I H C Service Bureau

For many hundred years agriculture was stationary. Scientific knowledge of soils and of stock breeding was confined to the few who did not rely entirely on their farms for support. Practically all of the labor was done by hand, and much of the procedure was based on habit and tradition. Prior to the formation of the International Harvester Company, no effort was made by the agricultural machine companies toward the promulgation of new ideas apart from furnishing the machines which were then in vogue. In the early days of this Company, however, it was seen that great help could be given the agencies then at work in improving farm conditions; that it was a natural medium for exchange of ideas, and with that end in view it began a vigorous co-operation with federal and state agricultural departments. It started out in a simple way, preaching the gospel of machine power in the place of hand work. It next introduced tillage information and other helpful suggestions into its catalogues. Historical and instructive pamphlets on vital farm problems soon fol-

Ten free scholarships have been given to the North Dakota Agricultural College, and one scholarship to the Iowa State Agricultural College. One fellowship has been established at the Iowa State Agricultural College, and another at Nebraska State College. The men who receive these fellowships are required to devote half their time to the study of specific farm



Students at Iowa State Agricultural College watching an I H C Tractor plowing demonstration

problems, and the entire agricultural world will share in the benefits accruing from such study.

The Bureau is making a specialty of problems peculiar to different sections of the country. For instance, it is assisting in the eradication of the boll weevil and the cattle tick in the South, and in the conservation of moisture in the arid lands of the West. To do this work in the fullest and best way three demonstration farms are established in the South—at Brookhaven, Miss., Marion, Ala., and Trimble, Ga.,—and two in the West—one in Nebraska, and the other in Colorado.

Each of these sections is in charge of an experienced agriculturist. He works hand-in-hand with the government experts and the colleges; visits the farmers; distributes literature which deals with problems of the moment; prepares for the papers articles on local farm conditions, and how to improve them; gives lectures with pictures which illustrate better ways of farming; offers prizes as a stimulus to activity.

Fifty thousand cattle tick booklets have been distributed in the infected districts of the South, and a prize Angus bull calf will be given to the county in Mississippi that is first to eradicate the tick this year.

On the demonstration farms, seed tests and soil tests are conducted, and in the West the bureau is co-operating with Professor Campbell in an effort to determine



One of the I H C Demonstration Farms in the South

lowed, until the present far-reaching facilities of the Company became standardized.

Progress is very largely a matter of education. To know is to advance. It is education—a knowledge of better ways, knowing what to do, and what not to do—that has advanced agriculture from drudgery and poverty to ease and plenty.

Through its I H C Service Bureau every sort of educational work—personal, general, popular, scientific—is carried forward, not only in all the states of the Union, but in Canada, and in various countries of the world.

The I H C Service Bureau co-operates in every way possible with the Department of Agriculture, the Experiment Stations, the State Agricultural Colleges, and with other colleges, universities and private schools, and the public schools, where the study of agriculture is growing in importance.

The Bureau has lent to schools, and colleges for demonstration purposes about \$50,000 worth of farm machines of various kinds. After a student has demonstrated the practicability of advanced methods through the use of a time-saving, labor-saving machine, he knows; and what is better, he knows he knows.



Practical Field Work—I H C demonstrator showing cotton growers how to raise corn

the best and most economical way of conserving soil moisture.

The Bureau is a storehouse of agricultural information which is entirely free. Every year thousands of farmers, editors, students, and others interested in the various problems of the farm, ask questions and receive answers that are reliable.

As a stimulus to larger and better crops, several thousand dollars are expended in prizes. Sometimes these prizes are machines, or seeds, and again they are silver cups, scholarships, or cattle.

There is published a monthly Service Bulletin, including a Farmers' Service Department page. This is mailed free to farmers, newspapers, and others. It contains timely articles on agriculture, and suggestions for the betterment of crops. Editors are given permission to reprint any article and, for the asking, illustrations and the articles put into plate form, will be forwarded to them.

Millions of valuable booklets are distributed annually. Besides a large general circulation, "The Story of Bread" is being widely used for supplementary reading in public and private schools and colleges. "For Better Crops" and the "I H C Almanac" are used in like manner, and last year nearly three million "Almanacs" were mailed direct to farmers.

The success of these booklets has brought the schools and the Bureau very close together. Several hundred

In addition to all this work, many articles of educational value with photographs or cuts are prepared for the farm papers, the school journals, and the general press. Photographs also are loaned to schools. And



An I H C demonstrator speaking at a Farmer's Picnic

hundreds of schools have on display an exhibit of sisal fibre, from which binder twine is made.

"We never sleep" would be a good motto for the I H C Service Bureau, for to serve, and serve well, is to be up and doing all the time. When not serving the world of agriculture along the lines enumerated, the Bureau is busy with plans for the future. It is its aim to keep just a little ahead of the procession, if possible. That this is good advertising is true, that it is building for the future is more true. So free from the taint of commercialism, however, is the work of the Bureau that in educational articles for the press the name of the Company is never mentioned, and in the pictures for the "Dawn of Plenty" lecture even the trade names on the Company's machines have been erased.



The average size of a farm in 1850 was 202.6 acres, while in 1910 it was 138.1 acres.



The South today yields annually \$2,609,000,000 from its factories, and \$2,600,000,000 from its farms.



The average acres of improved farm land per farm for 1850 was 78 acres, while in 1910 it was 75.2 acres.



The South drew \$553,000,000 from the countries of Europe and Asia for raw cotton and cotton-seed oil.



The total value of farm implements and machinery in 1850 was found to be \$151,587,638; in 1910, \$1,265,149,783.



A typical College Agricultural Building, Purdue University



A few of the Educational Books issued here by the I H C Service Bureau

stereopticon slides are kept moving from school to school. These slides are used in lectures that are given by teachers, and serve to illustrate the development of agriculture and of farm machines. Moving picture films are lent to such schools as are provided with moving picture machines.

Speaking of moving pictures, there is probably not a commercial or industrial concern in the world that has done so much in this line of education and publicity as the I H C Service Bureau. This was begun two years ago with an illustrated lecture, "The Romance of the Reaper." It has been given 2,000 times in schools, colleges, chautauquas, teachers' institutes, farmers' institutes, fairs, and dealers' conventions.

"The Story of Bread" led to a new lecture—"The Dawn of Plenty,"—which is now being presented at chautauquas and teachers' institutes, and is booked in many lecture courses for next winter.

A reel of educational pictures is now going the rounds of the moving picture theatres, and new reels will be furnished during the present summer. Several traveling moving picture shows are displaying both I H C films and slides.



Making Accessible Machines and Repairs

The success or failure of a business enterprise is largely determined by its ability to place its product into the hands of the consumer—at the time when the consumer most needs it. A rug and carpet factory would soon go to the wall if it did not spend many months in manufacturing rugs and carpets to meet the tremendous demand during the short season of moving and spring and fall house cleaning. A manufacturer of straw hats must be ready to meet the June first demand or this product will remain unsold. A coal dealer must have his coal yard fully stocked by the first cold spell or the business will go to his competitor.

Conversely the success or failure of the purchaser is frequently dependent on his ability to obtain "what he wants when he wants it." Particularly is this true in the farm machine industry. This business is so distinctly seasonal and the human trait to postpone a purchase until the actual need arises is so universal that unless every preparation is made in advance of the actual demand not only would the business of farm machine companies suffer but the farmers themselves would be unable in many cases to sow or harvest their crops. It is this situation which continually confronts both the

farmers and the International Harvester Company. How tremendous this problem is can only be appreciated by those intimately acquainted with the worldwide scope of the Company's business, the bulk and nature of its products, and the remote and inaccessible localities from which the cry for farm machines comes.

To meet this demand necessitated the establishment in the United States and Canada of 106 branch houses, each complete as a unit of distribution, with a sales force, repair force, warehouse, repair room, switching facilities, fully equipped to meet whatever need may arise in its tributary territory. In addition to this the



Mowers stacked up without wheels at the Chicago transfer. Waiting for the opening of the season

Company maintains five transfer houses at the most important centres together with many smaller transfer depots.



This map shows the IHC System of Distribution—each branch house is a complete selling and distribution organization

Before the active selling season opens more than 10,000 carloads of machines, implements, binder twine, wagons, etc., are stored in warehouses, available for immediate distribution during the rush season. What this rush season means to the country at large is shown by the record of one of these transfer houses during the month of July, when 1,157 carloads, and 2,755 tons



S. S. Edmonton unloading at the Fort William Transfer House. The steamer ahead is the good ship "Harvester"

of local freight were handled. At another transfer house during one season alone, 27,798 tons of machines, implements and twine were shipped. The capacity of the warehouse alone is 700 carloads and its trackage facilities accommodate eighteen cars. During the season the average shipments vary around 600 cars per month.

This service means much to the farmer—not only in bringing to his door the machines themselves, but in giving him quick access to repairs for the machines which he already has.

The accompanying map shows how these branch houses are located, according to the agricultural resources of the territory. For example there are seven branch houses in Illinois, but only one in Montana. For convenience of the farmer, local dealers are supplied with a full stock of repair parts. Formerly one branch house located at Columbus looked after the business in the whole state of Ohio; now, the Company has branch houses located at Cincinnati, Columbus, Cleveland and Toledo; and four other branch houses



The Branch House at Oklahoma City

located at Fort Wayne, Richmond, Pittsburgh and Parkersburg, cover territory in Ohio.

The dealer is not required to pay for his stock of repairs—he only pays for what he sells—with the exception of a few special parts which are staple products. A breakdown in the harvest field no longer occasions

more than a few hours delay at most, for the farmer can telephone his dealer to deliver the new part at once, whereas a breakdown formerly meant a serious delay in securing the needed repairs, and often caused heavy losses.

It has been the policy of the Company to retain all patterns of obsolete parts, so that any part required for an old type machine can be promptly supplied. Notwithstanding the discontinuance of the manufacture of the Buckeye, Minnie and other machines prior to the purchase of the plants by the International Company, repairs for such of these old machines as still remain in use are still supplied, and repair parts for any machines manufactured by any of the old companies are also furnished.

A repair catalogue for every I H C line of machines is prepared for the benefit of the retail dealer in ordering supplies for his customers. These catalogues are arranged in convenient form for referring to any machine. In addition to the catalogue number and description of each repair part, illustrations of all the principal parts are shown. Further, for the benefit of the user of the machine a separate list of repair parts is furnished, together with full instructions as to how to set up and operate the machine.

The nature of the business requires that farm machinery be manufactured sufficiently far in advance to insure an adequate supply to meet the most extraordinary demand. At the beginning of the year manufacturing operations are begun on estimates furnished by the territorial managers, and these estimates provide a basis for judging closely what the requirements for the coming year will be. The sales organization keeps its fingers constantly on the pulse of trade in every business center. It knows how many acres have been seeded to wheat and other small grains, how many acres planted to corn and cotton, and how many acres are in meadow; and also approximately what will be the yield of these various crops—and this information makes it possible to judge what the machinery demand will be in any given territory.

The wheat harvest begins in the southern part of Texas in the early part of May, and moves northward throughout the summer months and far into the autumn when it reaches the outermost limits of civilization in Canada. The large corps of farm machine salesmen and experts remove their coats and roll up their sleeves when the first binder is sent into the harvest field in Texas, and this army of faithful helpers follows the hum of harvest until its last echo ceases to reverberate among the pine-clad hills of Northern Canada. How much invaluable assistance these workers render to the farmers of the United States and Canada only the farmers themselves can tell.



It is estimated that the South loses \$100,000,000 annually in income from her livestock, due to the cattle tick.



The farm lands in 1850 comprised 15.6 per cent of the total land area of the country, while in 1910 it was 46.2 per cent.



During the three years of 1908, 1909 and 1910, more than 285,000 of America's best farming population settled in Canada.



Success Through Service

If a corporation controls neither the basic patents nor the raw materials essential to the product, it can get its share of the business only as it renders better service. If it raises prices it invites new enterprises into the field; if it lowers the quality of its product, it injures its reputation and loses its trade. If in general it declines to give service, its patrons decline to give it their patronage. This is illustrated by certain department stores that have won the good will of countless housewives, because they rendered more intelligent and more willing service.

All the basic patents on all the harvester lines have long since expired. The field is open to all who have the resources, the skill and the experience required for success in any large business. This Company has maintained and can maintain itself only by better machines and service, with fair prices and terms.

In a recent conversation not meant for publication, the sales manager of the International Harvester Company of America, a man who has gone through the farm machine trade battles of three decades, said: "It is to laugh at this talk that any business can grow and be long sustained on any other terms than that the one who does more for a customer than the other fellow gets the business. We saw that ten years ago, and now as we are ending our first decade as an organization we see where it pays. We started out with the slogan of 'service' and we speak of our I H C service as a railroad speaks of its freight rates. It is a part of our business creed. When we give a dealer a contract, we may never mention it, but he becomes heir to our I H C service. The same thing is true with the man who buys our machines for his own use. This service branches out into two separate avenues—one avenue leading to the dealer who handles the International Harvester Company product, and the other to the farmer who uses International Harvester Company machines. We are not now, and we never have posed as philanthropists, but we do claim to be square and above board. Our service is based on the assumption that a prosperous dealer means more business for our Company, and indirectly that a satisfied farmer will go back to the satisfactory dealer."

To the country merchant, the International service begins with advertising—not to him, but for him. According to the estimates now in, it is believed that for 1912, \$200,000.00 will be spent in directing trade to the local dealer through the columns of 2,800 county newspapers and 320 farm journals. In addition to this outlay, approximately 3,346,000 catalogues will be distributed and 6,000,000 personal letters will be sent directly from the International offices to the farmers themselves who, if they buy International Harvester Company machines, will do it through some merchant to whom the transaction will render a profit. No tax is made on the local dealer for this advertising, no prorating the expense nor taking the time of his clerks. His advice is often sought, but the service of directing all inquiries for agricultural machines to him is a part

of the I H C service. For the first four months of 1912 61,000 inquiries were passed through the main offices of the Company en route to the dealer, showing them where in their own neighborhood the live prospects were.

This service continues in a way unique in the annals of business. The dealers who handle International machines are lent the services of salesmen free of cost, who are paid exclusively by the International Harvester Company. So far as is known, no other concern in the world co-operates with its dealers to the extent of making a product, selling it wholesale, and then paying the wages of the salesmen who resell it at retail. This is known as the I H C canvassers' system.

Further, the Company maintains its own collection department, whose duty it is in many cases to collect the notes which the local merchant has taken in for these same machines. Perhaps too, more than any other business, the manufacturer of farm machines carries the financial burden. A great part of the International product, both in machines and in repairs, is sold on consignment. Huge trainloads of binders, mowers, and twine are sent out to all parts of the Union upon which not one cent will be paid until they are sold to the



The I H C Way of preparing a Seed-bed



farmer. That this puts into the midst of a farming community a ready-made, ready-to-use, and ready-at-hand harvesting machine, without the investment of one cent of local capital, is one of the unexploited benefits of big business. Add to this the accruing benefit of keeping in every little town a complete assortment of repair parts for long-used or ill-used machines, also without any local investment, and you wonder that the farmers do not rise up in arms at the slightest criticism of so serviceable, farsighted, and helpful a corporation.

The secret of agricultural plenty is being able to gather a 100 per cent harvest. The farmer has months in which to prepare his seed bed, but only a few days in which to gather his crops. Let his machines be out of repair during these days, and his summer's work goes for nothing; deprive him of this repair service, and there would be a cry going up from the country which would penetrate every bread-eating home of the United States. Even beyond this, the responsibility felt by the International Harvester Company does not cease when a sale is made, but continues so long as the machine is in use. For instance, many of these repairs are distributed free, and many more are put on these machines free by mechanics who travel throughout the agricultural districts taking care of the farmer's machine long after it has been paid for.

(Continued on page 34)



The Implement Dealer

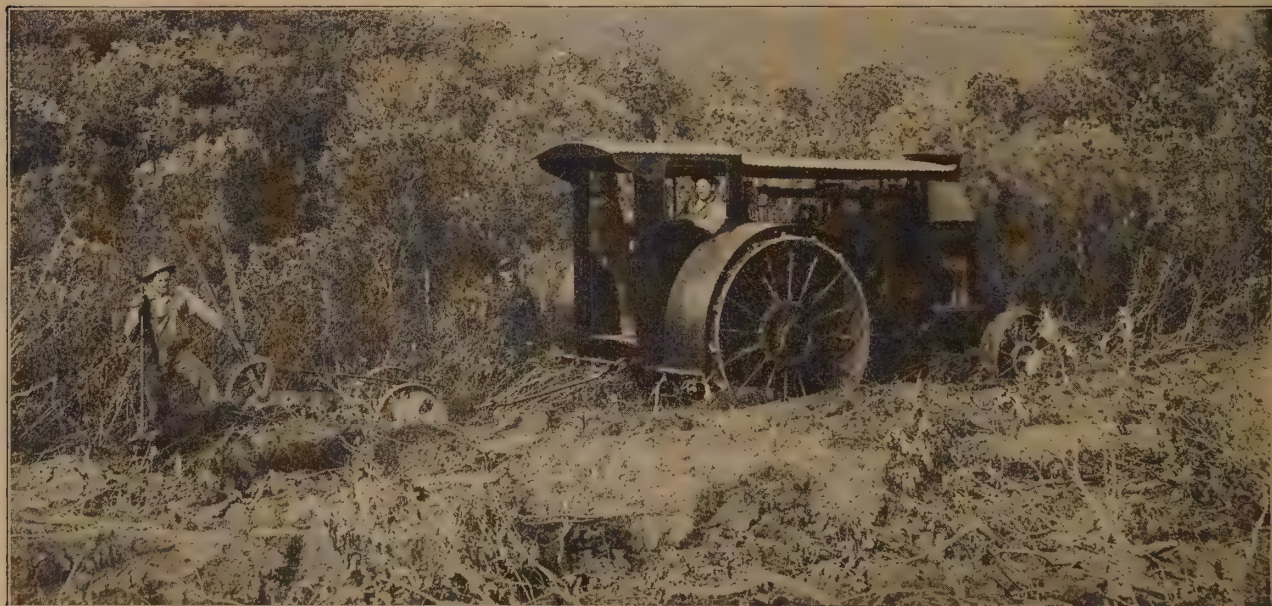
The implement dealer has been an important factor in the agricultural development of the United States. When the sturdy pioneer, after traversing the boundless prairies, finally decided upon the place of all others where he wished to make his home, he found close at hand an agricultural implement dealer. This pioneer implement dealer was as seasoned and inured to hardship as the new settler. His capital was meager, his stock was small, and embraced only implements of the simplest kind; as other settlers came, and population increased, the implement dealer's stock became more varied; his capital more nearly adequate, and he was better able than his predecessor to serve his customers satisfactorily.

The success of the implement dealer of the future will depend upon the extent to which he is of service to his community. He should know enough of scientific agriculture and of market conditions to have an opinion of value concerning the crops that can be most profitably raised by his customers. He should know enough of farm mechanics to know the tools and implements best suited to his district. He should be fully abreast of the new and developmental work in the implements and tools he sells,—indeed he should be able to give the manufacturers and their designers valuable advice and suggestions and thus aid in such development. He should be a pioneer in carrying to the farmer the knowledge of new and labor-saving devices. He should have sufficient capital to enable him to buy to the best advantage, and to conduct his business in the most efficient way. The binder, the mower and the hay rake

no longer constitute the major portion of the labor-saving devices on the farm. Indeed they form less than 15 per cent of the modern equipment on a farm of 160 acres. It is surprising that so many dealers are indifferent to the possibilities of a satisfactory and profitable addition to their business by the sale of this varied equipment. Less than 20 per cent of the dealers who sell the I H C binders and mowers handle the I H C manure spreaders,—an implement that should find a place on every farm. Only 17 per cent handle the I H C cream separators, only 20 per cent I H C engines, and less than 5 per cent handle I H C hay presses. No good implement dealer should rest content until every good farm in his territory is equipped with every labor-saving and crop-increasing tool and implement that can be profitably used,—from a tractor to a smoothing harrow. Nor should the farmer's wife and his family be overlooked. The dealer should see to it that there is a gasoline engine on the farm to furnish power for the necessary machines to separate the cream, to do the washing, the ironing, the churning, etc., and, if the farmer can afford it, an auto wagon for the necessary trips to town and for pleasure rides on holidays and after the day's work is done.

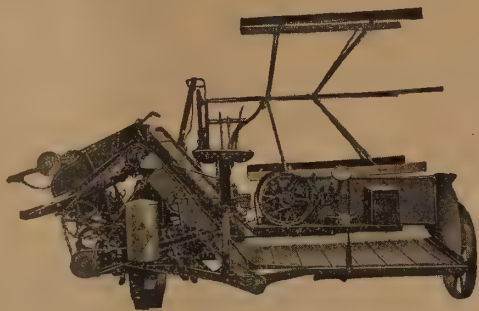
The products of the farm constitute the chief source of prosperity, and next in importance to the man who tills the soil, is he who provides implements with which to raise and gather more and better crops more economically. There are few men in any agricultural section who have a greater or better opportunity to be of service to the community than the agricultural implement dealer.

The International Harvester Company owes much of its success to the efforts of a large number of intelligent, energetic and successful implement dealers all over the globe, who are selling its products, and conscientiously endeavoring to raise the standard of agriculture and lighten the labors of the farmer, and add to the welfare of the nations. To all such this Company, in celebrating its tenth anniversary, wishes to express its appreciation of their efforts, and to extend its best wishes for their continued success.

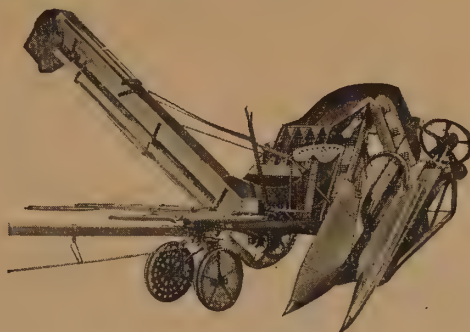


Reclaiming Waste Land with the use of an I H C Tractor

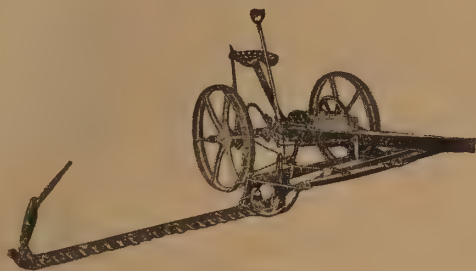
A Part of the I H C Line of Farm Machines



Power Binder



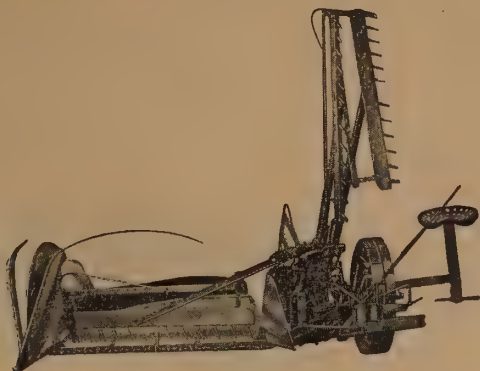
Corn Picker



Mower



Hay Press



Reaper



Husker and Shredder



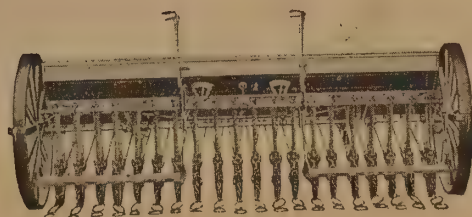
Disk Harrow



Weber Wagon



Side Delivery Rake



Disk Drill

Success Through Service

(Continued from page 31)

This is the I H C expert service—so free, so easy of access, and so willingly rendered that it is oftentimes abused by those whom it was designed to help.

Great as these factors have been in making farming



The Brandon, Man., Gen. Agency

personal feeling which has grown up between the Company's representatives and those with whom it does business.

So long as this feeling lasts the business of the International Harvester Company will grow. The domestic



The Aberdeen—General Agency Building

an easy as well as a profitable vocation, there is another element which shows the farsighted policy of those who have set the standards for this organization. They have given a soul to the corporation by the simple expedient, unheard of hitherto among railroads and similar semi-public service corporations, of placing responsible authority at the point of contact, so to speak, with the public. Authority is so placed in this Company, that there is no farmer in the United States or Canada

business of the International Harvester Company has increased from approximately \$40,000,000 in 1903 to approximately \$57,000,000 in 1911, and its foreign business from \$12,000,000 in 1903 to more than \$42,000,000 in 1911. This marvelous growth is the result entirely of a decade of service. Concretely, service to its agents and its customers, and more remotely service to the great, bread-eating, working world.

In an office on the executive floor of the International



Machines which save the back in haying



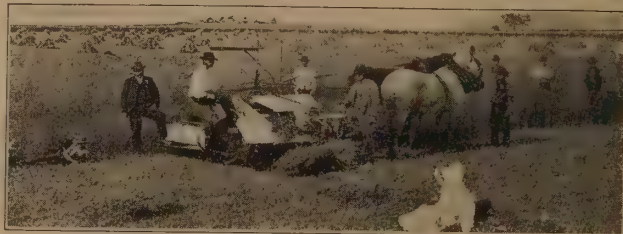
Harvesting with a Reaping Hook in North Africa

who is not within 'phoning distance of a general agent in whom is centered full power to act for the Company in correcting mistakes or adjusting errors. There is no side-stepping an issue by referring it to directors thousands of miles away; there is no inconveniencing the complainant by a circuitous route of red tape. The

Harvester Company hangs a conspicuous sign—"Ich Dien" (I serve). From that floor and from that building radiates a message to every man connected with the Company, and that message is "Ich Dien." From the most remote corners of the world, wherever International Harvester Company machines are sold, a message radiates back to the Chicago office, and that message also is "Ich Dien."



Making the Corn Harvest easy

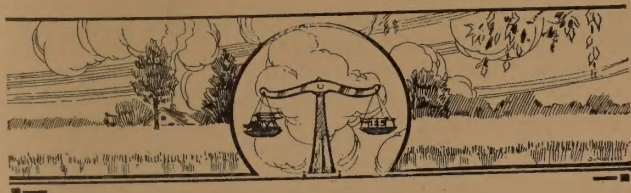


American Harvesters in Australia

customer knows that if anything goes wrong, within a few miles of where he lives is a representative of the Company with power to decide and authority to enforce the decision. It is more likely that this ready accessibility for redress is largely responsible for the warm

The state of Louisiana raised sufficient corn for her own use and some to spare in 1911, for the first time since the Civil war.





Prices—Farm Machines and Farm Products

So much has been said and written within the last few years about the harvester industry and its effect upon prices, that a few figures on this subject are pertinent.

Measured by any standard you please, the binder is one of the cheapest articles which the farmer buys. Tested by its usefulness, it is difficult to over-estimate its value. Intrinsically it is worth the labor it saves. A thousand years ago it took several days' labor to raise a bushel of wheat. In the days of Washington it took

four hours; today, with the use of the binder it takes ten minutes.

Compare the price of the binder with the cost of production: During the last ten years, by constant experimentation, the binder has been greatly improved in strength, efficiency and durability. During this period wages of factory labor have advanced 27 per cent. The cost of raw materials has increased from 12 to 20 per cent. But the price of the binder, improved, strengthened and more lasting, is now only

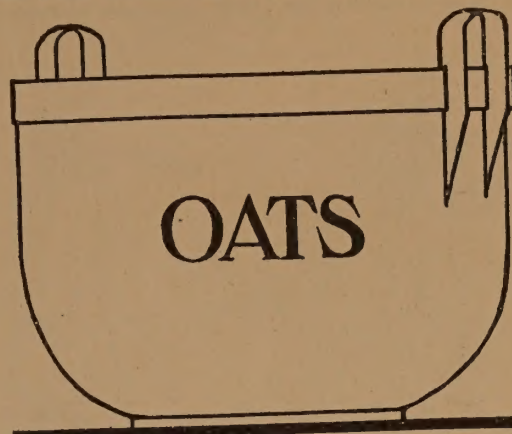
This bag of wheat was required in 1900 to buy a binder

about 3 per cent higher than it was ten years ago. The price of the mower is just what it was ten years ago.

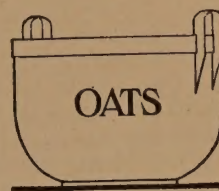
It is a noticeable fact that although one of the complaints made against the International Harvester Company is that it has too large a proportion of the trade in binders and mowers, the price of these implements has remained at a lower level than that of other implements in which the Company enjoys but a small share of the trade. To illustrate: The Company does only about 16 per cent of the wagon business in the United States, and yet wagons have gone up about 15 per cent. It sells 5 per cent of the drills, yet they have advanced about 7 per cent. It has a small percentage of the corn planter trade, and yet these implements have advanced about 20 per cent. It does 75 per cent of the binder business, and binders have advanced less than 3 per cent.

The binder is not only relatively but absolutely cheaper than other articles which the farmer uses. Notwithstanding the fact that it is a delicately adjusted machine of many parts (the McCormick binder for last year had exactly 3,851 parts) and is required to perform three distinct and different operations, the average cost of the binder per pound to the dealer is only 5.9 cents. The ordinary cook stove costs 9 cents per pound; the walking plow, 10 cents per pound; and the 4-horse power gas engine 11.6 cents per pound.

These are astonishing figures. The binder, made out of the finest steel, carefully seasoned wood, and expensive wrought iron, sells for less per pound than a stove of cast iron, containing only a few parts. This com-



It took this basket of oats in 1900 to buy a binder as compared



to this basket in 1912

plex machine, with its intricate binding attachment, costs less per pound than a plow, one of the least intricate implements manufactured.

What is true of the prices of the completed binder and mower is in a great measure true of repair parts. Prices of repairs are about one-third of what they were twenty years ago.

Measured in the value of the products which the farmer exchanges for his machines—and this is the most practical test—the binder costs the farmer today about one-half as much as it cost him a dozen years ago. In 1900 the farm price for wheat was sixty-one cents. On May 1, 1912, the farm price was 99.77 cents. At the first date the farmer would have had to carry 200 bushels of wheat to market in order to bring back an ordinary six foot binder; today he can get the same make of binder, only stronger and better made, for 125 bushels. In this trade he has seventy-five bushels to the good, wherewith he can buy a good wagon.



It took this ear of corn in 1900 to exchange for the same amount of farm machines as



this ear in 1912

In 1900 oats brought 25.8 cents per bushel; in 1912, 56 cents. It took over 450 bushels to bring back a binder then as compared with 218 at the present price.

THE HARVESTER WORLD

In fact, for the same load of oats with which he could get a binder ten years ago, he can now load on two binders and at the same time have the dealer return to him enough money to buy a fairly good suit of clothes. Barley then was 40.9 cents per bushel, now it is 96.2, by



It took this much labor in wages in 1900 to make a binder as compared



to this in 1912

which it is seen that he can do even better with his barley than with his oats. Rye was 51.2 cents, now it is 84.6. Thus it is with the cereals.

Corn in 1900 was 35.7 cents, and no efficient labor saving corn harvesting machines in the field. The total crop was only 2,105,000 bushels. In May, 1912, corn was worth 79.4 cents per bushel, over 100 per cent to the good, and the crop for 1911 was 2,776,000,000 bushels. Fields were full of corn binders, huskers and shredders, ensilage cutters, and gas engines.

Almost the same is the story of hay. In 1900 the farm price was \$8.89 per ton, on May 1, 1912, it was \$17.64. To cut this hay he could buy a mower at exactly the same price as he could in 1900, notwithstanding the fact that the labor used to build the mower is 27 per cent, and the material 12 to 20 per cent higher. It took approximately five tons of hay in those days to bring back a mower. Today that same amount of hay could be exchanged for two mowers.*

Since the International entered the twine trade, the prices have steadily fallen; the wholesale price of sisal twine has fallen from 11 cents to 6½ cents a pound,

and of manila from 13½ cents to 7½ cents a pound as shown by the following table:

	Sisal	Standard Sisal	Standard Manila	Mapila	Pure Manila
1902	11	11	12¼	13½	15
1903	10½	10½	11¼	12	13
1904	10¼	10¼	11¼	12¼	13¼
1905	10	10	11	12	13½
1906	10	10	11	12	13
1907	9½	9½	---	12¼	14
1908	8¾	8¾	---	11¼	13
1909	7½	7½	---	8¾	10
1910	7½	7½	7¾	8¾	9
1911	6½	6½	---	7½	8¾

Thus, the actual figures show that in those lines in which the International Harvester Company's percentage of business is greatest, prices have advanced the least, whereas in those lines in which it does a smaller percentage, prices have advanced in keeping with the increase in the cost of material and labor.

* These facts are well illustrated by the following editorial which appeared in The Kellogg Enterprise (Kellogg, Wabasha County, Minn.), September 7, 1911:

1895-1911

In August, 1895, M. K. Wolfe bought the first corn binder ever sold in Kellogg at a cost of \$125. At that time it would have taken in pay for it:

625 bu. best grade barley
or 700 bu. best grade corn
or 1,000 bu. best grade oats
or 5,000 lbs. live hogs.

Last week he bought a new corn binder, same make, at a cost of \$120. To pay for same it would take:

111 bu. best grade barley
or 250 bu. best grade corn
or 343 bu. best grade oats
or 2,000 lbs. live hogs.



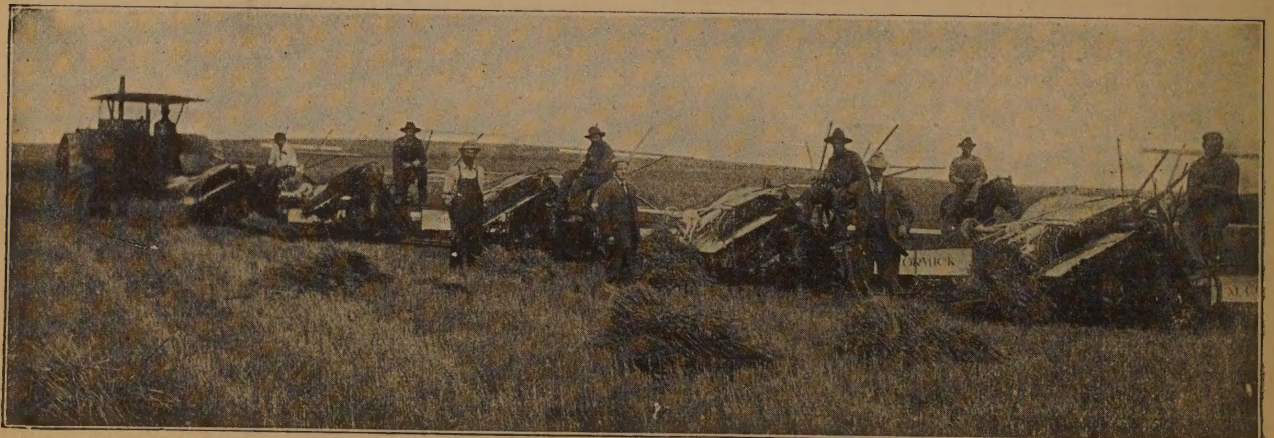
Too many men mistake conspicuousness for greatness.



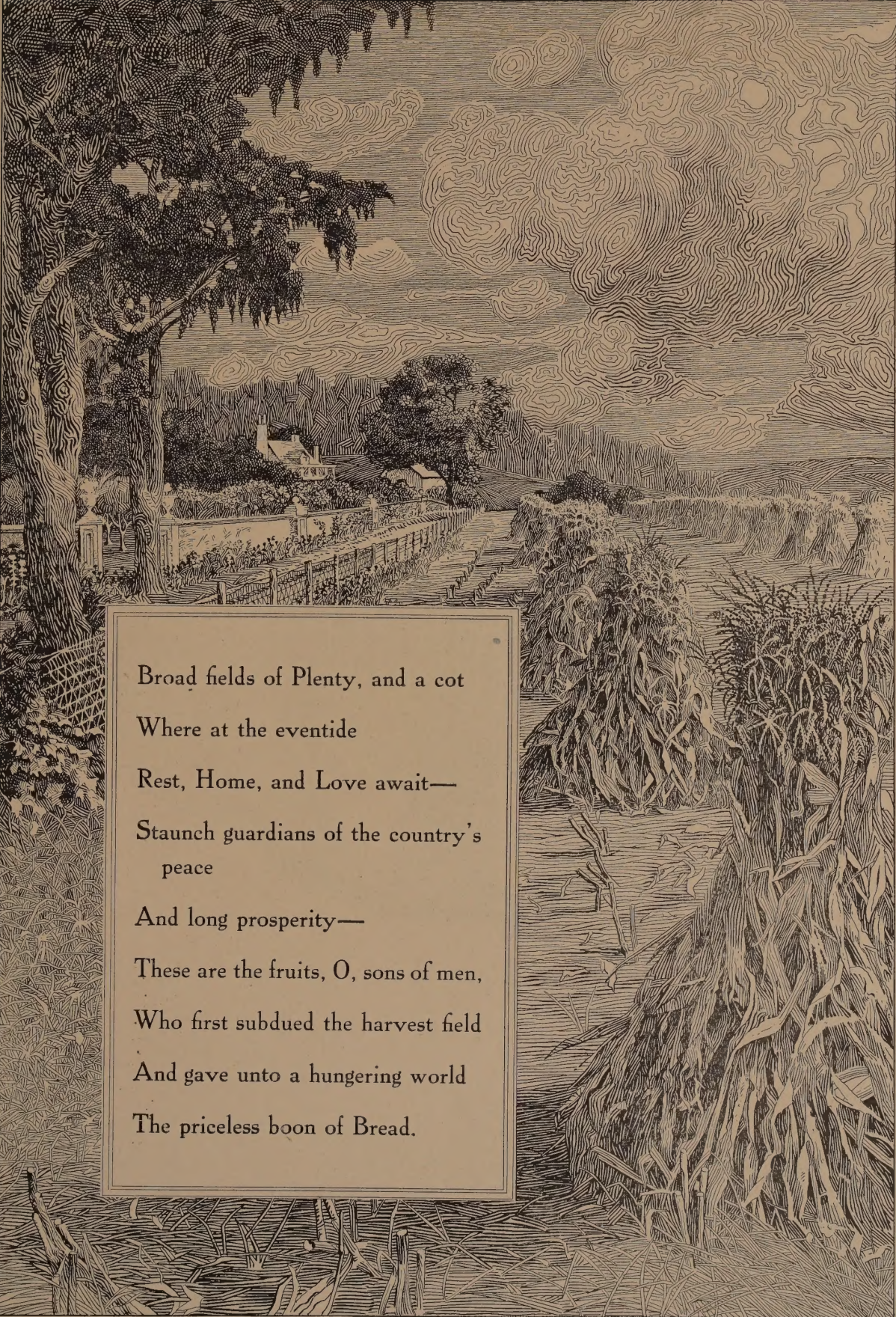
To succeed, one must sometimes be very bold and sometimes very prudent.—Napoleon.



The fact that duty should come before pleasure doesn't mean that it is to take the place of pleasure. You need recreation as much as you need food. Take it regularly and in the open air.



This is the most modern way of harvesting the grain crops



Broad fields of Plenty, and a cot
Where at the eventide
Rest, Home, and Love await—
Staunch guardians of the country's
peace
And long prosperity—
These are the fruits, O, sons of men,
Who first subdued the harvest field
And gave unto a hungry world
The priceless boon of Bread.

